

499

CAACTGGTAC	TTGCCTGACT	CAGGGTCACG	AATGCTCCCA	TTTGCCAAGA	AAGCGCCACA	15240
GAGATAGGCA	CGACCTGCTT	CCTCATCCGA	TAAAATCGCC	TCATCAATAC	CTGTTTCCAG	15300
GCCAAAGAAA	GAGTCTGCCA	AGTGCAAATC	ACTTAACAAA	TCCTGCACCT	TTTCATCTGT	15360
AAAAACGGTA	TAGACGCGAT	TCTTGCGAAG	ATTGCTCCGT	TGGTGGTGAC	GAATTTTCTG	15420
TTTGATTTC	TAGAGATGGA	GAAAGGACTC	ATAGAGGTGA	CGGGCCAGTT	TGGCATTTTC	15480
TGTCACAACT	GACAAAGTCA	AGCCCGAAGT	CGAGAGACCG	ATGCTACCAG	ACATTTTGAT	15540
AATGGCAGAT	AATTCATGCC	AGCTCAGATG	GTGTTGGCCC	AGGATTCTCT	CTTTTACTGC	15600
TACTGTGAAA	CTCATTTTTT	CACCTGTATA	ATGCGCATCA	ACTCGTCCAC	AATCAAATCT	15660
CCATCGTGGA	AGGCACCGCC	ATTTTCCAGA	CGAAGGAAGT	TAGATGAAAT	CACGCGCGAA	15720
ACTTGCTTAC	AAAGACCTAC	AAAATCGTGT	TCCACTTGCA	CTAAGTATTC	ATCAAAACGG	15780
TTGGAATTCA	TGTATTCTCTG	AGGCACTTTT	TCAATATTCA	CCAAGACAGT	GTCGATAAAA	15840
GGGCGACCAA	GGTGACGATG	CAAGACTTCC	ACGTGGTCGC	TATCTGTAAA	GTGTTCCGTC	15900
TCCCCACGTT	GGGTTCATGAT	ATTGCAGACA	TAGGCAATTT	CTGCCTTGGT	TTCCAAAAGA	15960
GCCCCCCCAA	TTTCCTTAAT	CACGATATTG	GGCAAAATAG	AGGTAAAGAG	GGAACCTGGC	16020
CCTAGGACAA	TCATGTCACT	TTCAAGGATG	GTCTGCACTA	CTCGACGGCT	GGCCAGAGGC	16080
GTATCATCGT	TTAGGGCATT	GGTCACATAG	ACATTGTCAA	TTATGCCTCG	ATGGTCTACA	16140
ATATGACTCT	CTCCAGCCAC	TTCTGTCCCA	TCCTGAAAGA	CTGCATGAAG	GGTCAAAGGA	16200
TGGTCACTGG	AAGGATAAAT	TTTCCCTGTT	GTATGGAAAA	ATTTGCTCAA	TAATGTCATG	16260
GCATTATAGG	TTGAACCCCTG	CATTTCTGAC	AAGCCAGCAA	TGATGAGATT	TCCCAATGGA	16320
TGGCCAGCAA	AGGCTCCGGC	ATCCTCAGAG	AACCGATACT	GAAAGACCTT	CTCATAAAAC	16380
TTAGGCATAT	CCGACATGGC	CACAAGGACA	TTACGAAGAT	CACCTGGCGG	TGTCAACTGT	16440
TGCATATTTT	TTCGGAGTTC	ACCTGAAGAA	CCACCATCAT	CTGCCACCGT	CACGATAGCT	16500
GCGATTTCCA	CATCTTTTTT	CCGCAGACTT	TTTAGAATGA	CGGGACTTCC	AGTCCCTCCA	16560
CCAATCACCG	TTATCTTTGG	TTTTCTCATG	AACGGTTTAC	CGTTTCCTTT	CTGCGGTCTT	16620
TGTCGCGATG	CCCTTCATTA	ACAGACCAAT	TCTTGGATAA	GTCCTGCGCC	AAGCGTTTAG	16680
CAAATGCCAC	ACTACGGTGT	TGTCCACCCG	TACATCCCAT	GGCAATGGTC	AAAACGGACT	16740
TACCTTCCTT	TTGGTAACTT	GGCAGAATCG	GCTCAATCAA	GGCCAATAAA	TGTTGATAAA	16800
AGTCTTCTGA	CTCAGGATGG	TTCATGACAT	AATCATAAAC	AGGTTCATCC	ACACCCGTTT	16860
GGTTTCTCAG	TTCTGGTAAA	TAATAGGGAT	TTGGCAAGAA	ACGGACATCA	AAGACCAAGT	16920

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CCGCATCAAT	CGGGATTCCA	TACTTAAATC	CGAAAGACAT	GACTTCGATA	CGGAAAGACT	16980
GGGCTTGTTT	TTGGTCTGAA	AACTGCTCTG	CAAGGGTTTT	GCGCAgCTCA	CGTGGAGTGA	17040
GTTCAgTCGT	ATCCACCACA	TTTTGGCTCA	TATTTTTCAA	AGGTGCCAAG	AGTTCACGTT	17100
CCAACTTGAT	TCCATCTAAA	ATACGACCGT	CTGCTGCTAG	TGGGTGACTC	CGTCTGGTTT	17160
CCTTGTAACG	AGCGACCAAT	TCCTTATCAG	CCGCATCCAA	AAAGAGGATT	TTGAAATCCA	17220
AACCATCTTG	ATTTTCCAAC	TCATCCAAAA	CAGCTTGAAT	CTCTGAAAAG	AAAGAACGGC	17280
TACGCATATC	CACTACCAAG	GCCAACTTAG	GATTGTCTTC	CTTAATTTCA	ACCAGCTGCA	17340
AAAACCTTAG	CAAGAGAGCT	GGCGGCATAT	TATCAATGGT	GAAATAACCT	AGATCCTCGA	17400
AGGACTGAAT	GGCTACAGTT	TTCCCTGCGC	CACTCATCCC	TGTCACAATC	ACCAAGTGAA	17460
GTTGTTTCTT	TGTCATCTTT	TTCTCCTTAT	ATCAAAAGAA	GTTTGGCAAC	ACCAAACCTC	17520
AACTAGCTTA	TCCAATCTCT	GCGATGACTT	CAATTTGAC	TTTTACATCA	CGAGGAAGAC	17580
GAGCTACCTC	CACAGCTGAA	CGAGCTGGGA	ATTCCTCTTT	GAAGGCCGTT	TGGTAAACCT	17640
CATTAAAAAG	AACAAAGTCG	TTCATATCGC	TCAAGAAGCA	AGTTGTTTTG	ACAACATGGT	17700
CAAAGTCTGT	TCCTGCTTCT	GCCAAAATAG	CACCGATGTT	TTTCAAGACT	TGCTCTGTCT	17760
GTTCTTGGAT	ATTCTCTCCT	ACAATTTCCC	CAGTTTCAGG	GGATAGGGGA	ACTTGACCGC	17820
TAGCAAACAA	AAGTTGCCA	ACGATTTTTT	CTTGAACATA	GGGTCCGATA	GCCTTTGGGG	17880
CCTTATCTGT	ATGAATTGTT	TTTGCCATTT	TCTTTTCCTC	ACAATTTTTT	TAAGATTGCA	17940
TCCCAGCCT	CATCCATCCC	TGCCTTACTG	ACAGATGAAA	AGAGGATGAA	ATCGTCACTC	18000
GGGTCAAAGT	TTAATTTCTT	TTTGATTGCT	GATTCATGCT	TGTTCCATTT	ACCACGAGGA	18060
ATCTTGTCGG	CCTTGGTCGC	CACAATGATG	ACTGGAATCT	CATAATACTT	GAGAAATTCG	18120
TACATCTGCA	CATCATCTGC	TGACGGGTCA	TGACGAAGGT	CAACTAGACT	GACAACCGCA	18180
CGGAGATTTT	CCCGAGTCGT	TAAGTACTCC	TCAATCATGC	ACCCCACTT	TTCACGTTC	18240
TTTTTAGAAA	CACGAGCATA	GCCATAACCA	GGCACATCCA	CAAAGCGCAT	CTTGTCATCA	18300
ATGTTAAAAA	AGTTCAGGAG	CTGGGTTTTA	CCAGGTTTTT	CTGATGTACG	GGCGAGATTC	18360
TTACGGTTCA	ACATAGTGTT	GATAAAGCTG	GATTTACCAA	CATTTGAACG	CCCTGCTAGG	18420
GCAATCTCTG	GCAGTTCATC	CTGCGGATAG	TGGGACTTAT	TAGCTGCACT	GAGCAAGATT	18480
TCAGCATTGT	GTGTATTAAG	TTCCATAGTC	ACCTCTAGGC	TGTTTCTAGG	ATCGGTTTAT	18540
CCGTTCATC	TACAGTTTCT	TTAGTGATGC	GAACCAATTT	CACATTTTCC	TGACTCGGCA	18600
CCTCAAACAT	GACATCTAGC	ATGGTTTCTT	CGATGATGGA	GCGAAGTCCA	CGCGCCCTG	18660
TCTTCCGTTC	GATTGCTTTA	TTAGCAATCT	CTTGAAGGGC	TTGTCGTCA	AATTCCAAC	18720

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CAACATCATC ATAAGAAAGC AAGGTTTGGT ATTGTTTCAC CAAGGCATTT CTTGGCTCTT	18780
TCAAGATGCG AACCAAGTCA TCAACGGTCA ATTGCTCAAG AGCCGCAAAA ACAGGCAAGC	18840
GTCCAATCAA CTCAGGGATA ATACCAAATT TTTGAATGTC TTCAGCGATG ATTTCTTGCA	18900
TGTATGAGCT GTTTTCGTCA ATCGCCTTAT TATTTTGACC AAATCCGATG ACTTTTTCAC	18960
CCAGACGTTG TTTGACAATT TCTTCAATAC CATCAAAAGC ACCACCCACG ATGAAGAGGA	19020
TATTTTTTGT ATCCACTTGA ATCATCTCTT GTTGTGGATG TTTGCGTCCA CCTTGAGGCG	19080
GTACGCTAGC AACAGTTCCC TCAATAATCT TGAGAAGGGC TTGTTGCACC CCTTCACCAG	19140
AAACATCAGC TGTGATAGAC ACATTCTCAC TCTTCTTGGC AATCTTGTCA ATTCATCCA	19200
CATAGATAAT GCCACGCTCT GCACGTTCGA TGTTAAAGTC AGCAACCTGC AAGAGTTTGA	19260
GGAGGATATT TTCCACATCC TCACCCACAT AACCAGCCTC CGTCAGAGCT GTCGCATCCG	19320
CAATAGCAAA AGGTACATTC AAGCTCTTAG CCAAGGTCTG GGCAAGGAAA GTTTTCCCTG	19380
AACCAGTTGG GCCAATCATC AAAATGTTTG ACTTCTGCAA ATCCACATCT TCTGACTCTT	19440
CGCGTGTATC GTGGAAATG ATGCGTTTGT AGTGGTTATA AACCGCCACT GCCAAGGCAC	19500
GCTTGGCACG ATCTTGACCA ATTACATAGT GGTTCAGAT ATGGAGGAGT TCAATTGGTT	19560
TTGGCACCTC AGACAAGTCT GCCAAGACTT CCTCAACCAA TTCTTCTCGA ATGATTTCTT	19620
GAGCTAACTC CACGCATTCA TTACAAATAA AAGCATTGTT GCCAGCAATT ATTTTTTGTA	19680
CTTCTTCTTG GTTTTTGCCA CAAAATGAGC AATAAACCAT CATATCATTT TTTCTATTTG	19740
TAGACATGAT TTCCTTCCAT TCTATACTGT CATTCTATCT AAAATAAGGT CATGTAAAAA	19800
GCATGAATAC TATTGACCAG ATTGGTAAAG GCATTTAACC AAAGGAGGAT AGAAAGCCCG	19860
TAACGCTTTT TACGAAAAGC TTGTGCTCCT GCCAGAAAAGC AGATGAAACA CAGAAAAGCC	19920
GTGAATAGAC CAAATAAACT CCGTTCCATT AGACTTCCTT TCTCTTGCGG TATTGGATGG	19980
TAAAATCATA AGGATTCTTC TCATCTTTGG CGTAAAATTT GCTTGAAACT GTCTCAAAAA	20040
GAGACAAGTC AAGTTCTTCA GGGAAATAGG TATCTCCTTC CACCCGAGCA TGAATGTGAG	20100
TGACAATCAC TTCATCAAGG TAAGGTTCAA AAGCCTGAAA AATTTGCTTC CCACCGATAA	20160
TGTAGAGATT CTTTCTTGA GCCTGATACC AGTCAAGAAC AGACTGGACG TCCTGAAAAG	20220
TAGCAACCCC ATCTATCTTT TCTTCCGGAT TACGCGTCAA AATCAAGGTT TCCCGTTTTG	20280
GAAGCAAGCG ACGCCCCATC CCATCAAAGG TCACACGCCC CATCAAGATA GCATGATTCA	20340
GAGTTGTTTC TTAAAGTGC TGCAATCTG CTGGCAAATG CCAAGGCAGA CGATTTTCCT	20400
TACCAATCAC ACCCTCTTCA TCCTGGGCCC AAATAGCTAC GATTTTCTTA GTCATGCTTC	20460

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CATCCTTTTC ACTGATAGTA CTATTTTATC AAAAAACTCA AAAAAAGACT GGTTCGGAAT	20520
AGCTTACAAA ATAGAAAAAA TCTGTAAGAA ATTCCTACA GATTATCTA TGTTTCCTTA	20580
TTTCTTACAA ACCAGGTGCT TGTCCAAGTT CGGCTGCAAG CATCCAAATT GTTTTATCTG	20640
TTTCAGTTTT AGCGCCTGCA AAGATACCGT TTGTCACATC GTCACCTTCT TCATCAGTGA	20700
CATCCAAACC TTTTGGGAAA AGTTCTGACA AGTAACGGTA GATAACAAGA ACACGTTCCTCA	20760
AGCTTTCTTC AACATTACGG TATTCACCAG CTTCTTCTTC GATTTCACCTA TTTTGAAGGA	20820
ACTCTGTCAA TGTAAGAAAT GGGCTTCCAC CGAGTGTAAT CAAGCGTTCA CTGATTTTCAT	20880
CCAATTGACC GTCAAGAGCT TCCATGTACT CATCCATTTT TGGATGCCAT ACAAGGAAAC	20940
CACGACCATG CATATACCAG TGCACCTGGT GCAAAGCAAC GTGAGCTACA TACAAATCAG	21000
CAACAGCTTG GTTCAAGACT TCCTTTGTTT TTGCCAATGC	21040

(2) INFORMATION FOR SEQ ID NO: 56:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2387 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 56:

ATTCTTAATA CGATTAAAAG GCTTATTACT AAAAGAAAAT TTCAGTTAGA TGAATAAAC	60
TTGTCGTC AATCCCGATT TAACGAGATG TTTGGGGAAA ATAAATATT TGAAAGCATT	120
GATAACTTAT TTGATATTAT AGATGGTGAT AGGGGCAAAA ATTATCCTAA ATCAGATGAG	180
TTGTTTAGTG AGGAGTACTG TTTATTTTAA AATACAAAGA ATGTTACTAA AAACGGATTT	240
TCATTCGATA CAAAGCAATT TATCACTAAA ACAAGGATA AATTACTTCG AAAAGGCAAA	300
CTTGAGCGTT ATGATATAGT CTTGACAACA AGAGGTACTG TTGGAAATGT AGCGTACTAC	360
GATGAATTAA TAAAATATAA ACATTTACGT ATAAATTCAG GTATGGTAAT ATTACGTCCC	420
AAGACACCAA ATCTAAATCA GAAATTTATT ATCCATGTTT TAAGGAATAA TAATTATAGT	480
CGAGTGATAT CAGGAAGTGC TCAGCCTCAG TTACCAATTA CAAAATTAAA AAAAATACTT	540
CTCCCCCTCC CCCCACTAGC CCTCCAAAAT GAGTTCGCAG ACTTTGTAGT CCAGGTCGAC	600
AAATCACAAT TGGCAATCCA AAAATCTCTG GAAGAACTTG AACTTTGAA GAAATCTCTG	660
ATGCAGGAGT ATTTTGGCTG ATATTCTGCC ATTGTAATTA CGGTAATGAT TTGTTATAAT	720
ACTTCAAAGG AGGAAATCAG ATGGTAGTAA AAACAAGAAA ACAAGGAAAT TCAATCACCA	780
TTACGATTCC AAGTGAATTT AATATTCCAA GTGGTGTTAA ATACGAAGCG AAATTGTTAC	840



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CAAGTGGTGA GATTATCTTT ACTCCTGAAG AATTGGGGCA GCAGGTTTCT TATGTATCTG	900
ATGATGCCTT TGA CT TAAAT TTAGATAAAA TATTTGACGA ATACGACGAT GTTTTCAAAG	960
CTTTGGTGGA AAAATGACAA TCTATTTGAC AGAAAAGCAA ATTGAAAAAA TAAATGCTTT	1020
AGCAATTCAA CGGTATTCTC CAAATGAGAA AATTCAAACA GTTAGTCCTT CTGCCTTAAA	1080
TATGATTGTG AACTTACCAG AACAAATTTGT CTTTGGGAAG CCTCTTTATC CAACAATTTT	1140
TGATAAAGCA ACGATACTAT TTGTCCAATT GATAAAGAAG CATGTTTTTG CTAATGCTAA	1200
TAAAAGAACT GCTTCTTCG TTTTGGTCAA ATTTTACAA TTAAACGGCT ATCGTTTTTC	1260
TGTAACGGTA GAAGAAGCAG TAAAAATGTG TGTAACCATC GCAGTAGAAG CTTTAACTGA	1320
TGAAAAATG ACAAGCTACT CCAAATGGAT TTCTGAACAT TCTGTTAGAG AAAAGGTCAA	1380
AAAGTAACCT AGTATGCTGG ATTTGAATGA GCACAAGAAA ATAAATGAAC AGACAATATT	1440
AGAATTCTGT AATGCAGAAA CTGATATTGT CTC'TTTTAT TGATGAATAA GAAAGTGAGA	1500
AATATGGAA TCAAAAGTTA CAATTATCAT GCAAGAAATG TTACCTCTTT TAAATAATGA	1560
ACAATTACTA GCGTTGAGAG AGAGTTTAGA ACATCATCTA GTAGACGGAA AAAAGCAGCA	1620
GAAGTATTCG AATAATAACC TGTGCAACT ATTTATTACC GCCAAGCAGG TAGAGGGCTG	1680
TAGCTCAAAA ACAATTCGTT ATTATCAGAG GACGATTGAA AACTTGTTTA ATGCTATTAA	1740
AGAGTCTGTG ACACAACTCA CAACAGATGA TTTAAGGAGT TATTTAGCAA ATTACCAGTC	1800
TGAAAAGGAT TGTAAGTAAGG CAAATTTAGA CAATATTAGG CGTATATTGT CTTCTTTTTT	1860
TGCTTGCTT GAGCAAGAGG ATATATCATT AAAATTCCCA TTCGACGGAT ACAGAAAATT	1920
AAGACTGAGC AAAATGTGAA GGAACTTAT ACTGATGAAC ATTTGGAAAT TATGCGTGAT	1980
AACTGTGAAA ATTTGAGAGA TTTGGCAATA ATAGACCTAC TAGCATCGAC AGGTATGCGT	2040
GTAGGGGAGC TTGTACAGTT GAATCGTTCA GATATTGATT TTGAAAACAG AGAGTGTGTT	2100
GTCTTTGGTA AAGGAAAGAA GGAGAGACCA GTATATTTTG ACGCTCGTAC GAAAATTCAT	2160
TTAAGAAATT ATCTTAACGA CAGAAAAGAT AGTCACCCTG CTC'TTTTGT AACGCTAGTT	2220
GGAAAAGTCC AGAGGCTTGG AATTGCTGGT GTAGAGATTC GCTTAAGAAA GTTAGGAGAC	2280
AAACTCGGCA TACAAAAGGT TCACCCACAT AAGTTCAGAA GAACTTTAGC GACTAAGGCA	2340
ATTGATAAAG GTATGCCTAT CGAACAAGTC CAAAACTGC TAGGTCA	2387

(2) INFORMATION FOR SEQ ID NO: 57:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10669 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

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(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 57:

ATATTAAAGC GACTTTCTGT GCGCTAGGGA AAAATGTTCC TGGGAATGAG GACTTGGTGA	60
AGAGGATAAA ATCTGAAGGT CATGTTGTTG GAAACCATAG CTGGAGCCAT CCGATTCTCT	120
CGCAACTCTC TCTTGATGAA GCTAAAAAGC AGATTACTGA TACTGAGGAT GTGCTAACTA	180
AAGTGCTGGG TTCTAGTTCT AAACATCATGC GTCCACCTTA TGGTGCTATT ACAGATGATA	240
TTCGCAATAG CTTGGATTG AGCTTTATCA TGTGGGATGT GGATAGTCTG GACTGGAAGA	300
GTAAAAATGA AGCATCTATT TTGACAGAAA TTCAGTATCA AGTAGCTAAT GGCTCTATCG	360
TTTTTGATGCA TGATATTCAC AGTCCGACAG TCAATGCCTT GCCAAGGGTC ATTGAGTATT	420
TGAAAAATCA AGGTTATACC TTTGTGACCA TACCAGAGAT GCTCAATACT CGCCTAAAAG	480
CTCATGAGCT GTACTATAGT CGTGATGAAT AAGCAAGAAA AAATAGGTCT GTTAGATATT	540
TGACAGACTT ATTTTTTACA GAATATAGTA CTACTTAAAA AATGTTTAT GCTATAATTG	600
ATGAATAAAA TAGAAGGAGA AGCATATGAA TACCTATCAA TTAAATAATG GAGTAGAAAT	660
TCCAGTATTG GGATTTGAA CTTTTAAGGC TAAGGATGGA GAAGAAGCCT ATCGTGCAGT	720
GTTAGAAGCC TTGAAGGCTG GTTATCGTCA TATTGATACG GCGGCGATTT ATCAGAATGA	780
AGAAAGTGTT GGTCAAGCAA TCAAAGATAG CGGAGTTCCA CGTGAAGAAA TGTTCTAAC	840
TACCAAGCTT TGAATAGTC AGCAAACCTA TGAGCAAACCT CGTCAAGCTT TGGAAAAATC	900
TATAGAAAAA CTGGGCTTGG ATTATTTGGA TTTGTATTTG ATTCAATTGGC CGAACCCAAA	960
ACCGCTCAGA GAAATGACG CATGGAAAAC TCGCAATGCG GAAGTTTGA GAGCGATGGA	1020
AGACCTCTAT CAAGAAGGGA AAATCCGTGC TATCGGCGTT AGCAATTTTC TTCCCATCA	1080
TTTGATGCC TTGCTTGAAA CTGCAACTAT CGTTCCTGCG GTCAATCAAG TTCGCTTGGC	1140
GCCAGGTGTG TATCAAGATC AAGTCGTAGC TTACTGTCTG TGAAGGGAA TTTTATTGGA	1200
AGCTTGGGGG CCTTTTGGAC AAGGAGAACT GTTTGATAGC AAGCAAGTCC AAGAAATAGC	1260
AGCAAATCAC GGAAAATCGG TTGCTCAGAT AGCCTTGCC TGGAGCTTGG CAGAAGGATT	1320
TTTACCACCT CCAAATCTG TCACAACCTC TCGTATTCAA GCTAATCTTG ATTGCTTTGG	1380
AATTGAACTG AGTCATGAGG AGAGAGAAAC CTTAAAAACG ATTGCTGTTC AATCGGGTGC	1440
TCCACGAGTT GATGATGTGG ATTTCTAGAA AATCATAAAA AGAATTGTAC ATTATTTCTAA	1500
TTTTTGATAT AATAGTCAGC AGGAAAGAAA GTCTTATGGC GTTCTTCAAG CGAGCTTGGG	1560
ATAGTGGGAG CCAAGTAGGG CAAAATAAAG GGCTGGCGCT TTCTGTAGTA TTTTCAAAA	1620

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CAATGAAGTA ATAAATTAGG GTGGAACCGC GTTCTGACG CCCCTAGGTT AAATCAACCT	1680
AGGATTGTCA GATGTGGTTC TTTTGCTTAT TCAGTCTATT GTGTGAAAGA AAGGAGAGCC	1740
GTGGACAACC TTTATCTTGT AAAAGACGAT AGTCAACTAG CTACATTTCG TGATTTTGTA	1800
GTAAGAAATA CTGAAAAGTT GAAAGATTAT CAATCTTTTT TAAAGAATGA ACTTGCACTC	1860
TGTGATTTAC CGCAAGCTGT TATTTGGTCA GATTTTAATG CTGCTACACA GATTATTAGG	1920
GAAAGTGCTG TTCCAACCTA TACAAATAAT AGACGAGTGG TTATGACGCC TGATTTAGCT	1980
GTTTGGAAG AATTGTATTT GTATCAGTTG ATGGACTACG AGTGTCTGA GCAAACCTCA	2040
GCAATAGAAA GTCACATCA TTCTTTATCT GAAAATTTCC TCTTACAGAT TGTAGGACAT	2100
GAGTTAGCTC ATTGGTCGGA CATTTTITAG ATGATTTTGA TGGTTATGAC TCTTATATCT	2160
GGTTCGAAGA GGGGATGGTT GAATATATTA GTCGCAAGTA TTTCTTGACA GAAGAGGAAT	2220
TTCAAGCGGA AAAAATTTGT AATCAATCTC TCGTAGAACT TTTTCAGAAG AAGTATAGTT	2280
GGCATTCAAT GAATGATTTT GGTCTCTCGA CTTATGATAA GAACTATGCA AGTATTTTTT	2340
ATGAATACTG GCGCAGCTTT TTGACAGTAG ATAAGTTGGT AGAAAATTTA GGTAGTGATC	2400
AAGCGGTCTT AGATTCTTAT CATTTATGGG CAAATACAGA AAAAATTTT CCCTTGTTAG	2460
ATTGGTTTGT TCAGCAGAAA TTAATTGAAA AAGAAATATA AAAAATAAAG GAGTAAACAA	2520
TGTCTAAGAA ATTAACATTT CACTGCATCA GTGGCAGAGA CCTCCTTACA GTCGGGCTGC	2580
TCCACGCTCA GCACTAGAGT GCCTGAGCTA GACGCAGTAC TAACTCGTCT TGCCTCGTAT	2640
GATCGACGAG GCAGACTCGT GTCGCAAGTA ATTTATTTTT ATTAAGGAGT ATTCAATGTC	2700
TAAGAAATTA ACATTTCACT GCGTCAGTGG CAGAAACCTC CTTACAGTCG GACTGCCCTA	2760
CGCTCAGCAC TAGAGTGCCT GAGCTAGACG CAGTACTAAC TCGTCTTGCC TCGTATAATC	2820
GACGAGGCAG ACTCGTGTG CAAGAAATTA TTTTITATTA AGGAGTATTC AATGTCTAAG	2880
AAATTAACAT TTCAAGAAAT TATTTTGAAT TTGCAACAAT TTTGGAATGA CCAAGATTGT	2940
ATGCTTATGC AGGCTTATGA TAATGAAAAA GGTGCGGGGA CAATGAGTCC TTACACTTTC	3000
CTTCGTGCTA TCGGACCTGA GCCATGGAAT GCAGCTTATG TAGAGCCATC ACGTCGTCCT	3060
GCTGACGGTC GTTATGGGGA AAACCCTAAC CGTCTCTACC AACACCACCA ATTCCAGGTG	3120
GTCATGAAGC CTTCTCCATC AAATATCCAA GAACTTTACC TTGAGTCTTT GGAAAAATG	3180
GGAATCAATC CTTTGGAGCA CGATATTCGT TTTGTTGAGG ACAACTGGGA AAACCCATCA	3240
ACTGGTTCAG CTGGTCTTGG TTGGGAAGTT TGGCTTGACG GAATGGAAAT CACTCAGTTC	3300
ACTTATTTCC AACAAGTCGG TGGATTGGCA ACTGGCCCTG TGAATGCGGA AGTTACCTAT	3360

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GGTTTGGAGC	GCTTGGCTTC	TTACATTCAA	GAAGTAGACT	CTGTCTATGA	TATCGAGTGG	3420
GCTGATGGTG	TAAAAATACGG	AGAAATCTTT	ATCCAGCCTG	AGTATGAGCA	CTCAAAATAT	3480
TCATTTGAAA	TTTCGGACCA	AGAAATGTTG	CTTGAAAAC T	TTGATAAGTT	TGAAAAAGAA	3540
GCTGGTCGTG	CATTAGAAGA	AGGCTTGGTA	CACCCTGCCT	ATGACTATGT	TCTCAAATGT	3600
TCACATACCT	TTAATCTGCT	TGACGCGCGT	GGTGCCGTAT	CTGTAACAGA	GCGTGCAGGC	3660
TATATCGCTC	GTATCCGTAA	CTTGGCCCCG	GTCGTAGCCA	AAACCTTTGT	CGCAGAACGC	3720
AAACGCCTAG	GCTACCCACT	TTTGGATGAA	GAAACAAGAG	CTAAACTCCT	AGCAGAAGAC	3780
GCAGAATAAA	GAGAGTGACA	AATTACGAAA	ATGGGCGAAC	AGAGTGAGCC	CTGAGCCAGT	3840
TGCCGCAGTG	ATGAAGGTAT	CCTTAGTGAA	ACTAAGGATA	CTAGGCAAAA	TTGGAGACTT	3900
TTGGCTCCAA	TTTTAGCAAT	GAAACAACGA	AGTTGGTTGC	TTGCGTGCCA	ATCACATAAG	3960
GCAAACTGGA	AAATAAAAAG	ATACTTTTCG	GAGAAAAAAC	ATGACAAAAA	ACTTATTAGT	4020
AGAACTCGGT	CTTGAAGAAT	TACCAGCCTA	TGTTGTTACG	CCAAGTGAAA	AACAACTAGG	4080
CGAAAAAATG	GCAGCCTTCC	TCAAGGGAAA	ACGCCTGTCT	TTTGAAGCCA	TTCAAAC TTT	4140
CTCAACACCA	CGTCGTTTGG	CTGTTCTGTG	AACTGGTCTT	GCAGACAAAC	AGTCTGATTT	4200
AACAGAAGAT	TTCAAGGGTC	CAGCAAAGAA	AATTGCC TTA	GATAGTGATG	GAAACTTCAC	4260
CAAAGCAGCT	CAAGGATTTG	TCCGTGGGAA	AGGTTTGA CT	GTTGAAGATA	TCGAATTCCG	4320
TGAAATCAAG	GGTGAAGAAT	ATGTCTATGT	CACTAAGGAA	GAAATTGGTC	AAGCAGTTGA	4380
AGCCATTGTT	CCAGGCATTG	TGGATGTCTT	GAAGTCACTG	ACTTTCCTG	TCAGCATGCA	4440
CTGGGCGGGA	AATAGCTTTG	AATACATCCG	CCCTGTTCAC	ACTTTAACTG	TTCTCTTGGA	4500
TGAGCAAGAG	TTTGACTTGG	ATTTCC TTA	TATCAAGGGA	AGTCGTGTGA	GTCGTGGCCA	4560
TCGTTTTTTG	GGACAAGAAA	CCAAGATTCA	GTCAGCATTG	AGCTATGAAG	AAGACCTTCG	4620
TAAGCAGTTT	GTAATCGCAG	ATCCATGTGA	ACGTGAGCAA	ATGATTGTTG	ACCAAATCAA	4680
GGAAATTGAG	GCAAAACATG	GTGTACGTAT	CGAAATTGAT	GCGGATTTGC	TGAATGAAGT	4740
CTTGAATTTG	GTGGAATACC	CAACTGCCTT	CATGGGAAGT	TTTGATGCTA	AATACCTTGA	4800
AGTTCCAGAA	GAAGTCTTGG	TGACTTCTAT	GAAGGAACAC	CAGCGTTACT	TTGTTGTTCTG	4860
TGATCAAGAT	GGAAAACTCT	TGCCAAACTT	CATTTCTGTT	CGTAACGGAA	ACGCAGAGCG	4920
TTTGAAAAAT	GTCATCAAAG	GAAATGAAAA	AGTCTTGGTA	GCCCCGCTTG	AAGACGGAGA	4980
ATTCTTCTGG	CGTGAAGACC	AAAAATTGGT	GATTTCAGAT	CTTGTTGAAA	AATTAAACAA	5040
TGTCACCTTC	CATGAGAAGA	TTGGTTCTCT	TCGTGAACAC	ATGATTTCGTA	CGGGTCAAAT	5100
CACTGTACTT	TTGGCAGAAA	AAGCTAGTTT	GTCAGTGGAT	GAAACAGTTG	ACCTTGCTCG	5160

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TGCAGCAGCC	ATTTACAAGT	TTGACTTGTT	GACAGGTATG	GTTGGTGAAT	TTGACGAACT	5220
CCAAGGAATT	ATGGGTGAAA	AATACACCCT	TCTTGCTGGT	GAAACTCCAG	CGGTGGCAGC	5280
TGCTATTTCGT	GAACACTACA	TGCCTACATC	AGCTGAAGGA	GAACTTCCAG	AGAGCAAGGT	5340
CGGCGCAGTT	CTAGCCATTG	CAGACAAATT	GGATACGATT	TTGAGTTTCT	TCTCAGTAGG	5400
ATTGATTCCA	TCAGGTTCTA	ATGACCCTTA	TGCCCTTCGT	CGTGCAACTC	AAGGTGTGGT	5460
TCGTATCTTG	GATGCCTTTG	GTTGGCACAT	TGCTATGGAT	GAGCTGATTG	ATAGCCTTTA	5520
TGCATTGAAA	TTTGACAGTT	TGACTTATGA	AAATAAAGCA	GAGGTTATGG	ACTTTATCAA	5580
GGCTCGTGTT	GATAAGATGA	TGGGCTCTAC	TCCAAAAGAT	ATCAAGGAAG	CAGTTCTTGC	5640
AGGTTCAAAC	TTTGTGTGG	CAGATATGTT	GGAAGCAGCA	AGTGCTCTCG	TAGAAGTAAG	5700
CAAGGAAGAA	GATTTTAAAC	CATCTGTTGA	ATCACTTTCT	CGTGCCTTTA	ACCTGGCCGA	5760
GAAGGCAGAA	GGGGTTGCTA	CGGTTGATTC	AGCACTATTT	GAGAATGACC	AAGAAAAAGC	5820
TTTGGCAGAA	GCAGTAGAAA	CACTCATTTT	ATCAGGACCT	GCAAGTCAGC	AATTGAAACA	5880
ACTTTTTCG	CTTAGCCCAG	TCATTGATGC	TTTCTTTGAA	AATACTATGG	TAATGGCTGA	5940
AGATCAGGCT	GTCCGTCAAA	ATCGTTTGGC	AATCTTGTC	CAACTAACCA	AGAAAGCAGC	6000
TAAGTTTGCT	TGTTTTAACC	AAATTAACAC	TAAATAAAAT	TTGATAAACG	GACTTTATCT	6060
TATTACAAAG	GAGAAGAAAT	GGATCCGAAA	AAAATGCTC	GTATCAATGA	GCTTGCTAAA	6120
AAGAAAAAAA	CAGAAGGCTT	AACACCAGAA	GAAAAAGTGG	AACAAGCCAA	ACTACGTGAG	6180
GAGTACATCG	AAGGTTATCG	CCGCGCTGTT	CGTCACCACA	TTGAAGGAAT	CAAAATTGTG	6240
GACGAAGAAG	GAAACGATGT	TACACCAGAA	AACTACGCC	AAGTACAACG	TGAAAAAGGA	6300
TTACATGGCC	GTAGTCTTGA	TGATCCAAAT	TCATAATAAT	ACTCTTCGAA	AATCAAATTC	6360
AAACCACGTC	AGCTTCACCT	TGCCGTACTT	AAGTACAGCC	TGCGGCTAGC	TTCTAGTTT	6420
GCTCTTTGAT	TTTCATTGAG	TATATGTATT	CTTTCTTTTA	ACAAAGATAG	ATGAAACGAT	6480
AACAAAGAGA	CTAGCAGTTT	GTGTTTGCTA	GTCTTTTTC	GCTAAAAAAG	GAACCATAAT	6540
GGTTCCTAAA	AACATCATTT	AGTAACTTGC	ACCGGCTGTA	GCGTCTGCGT	CACCACCGTG	6600
GCCTCCAGCA	TCCCCTGAAT	CAGAAGCGCC	AGAAGTAGCA	TCGGCGTCTC	CATGACCTCC	6660
GGCAGCAGGA	GCAAAATGGTC	CGCTACCACC	CACCAAACGT	TGACCAGTCT	CTTTTAGGTA	6720
CCAGTCAAGC	CATGGTTGGA	AGTTAAAGAC	GATTTTCATTG	ATACCAGCGT	ATGATCCATC	6780
AGGATAGTAC	ATTGCTTGGT	AGTTGTGAGT	GTTGATAACA	CCTGCAGGAG	AACCTGGAAC	6840
GATCGTACGG	ACGTATTCTT	GGTTCCGTT	GCGAAGTGTT	CCGATAACCC	ACTCTACGTT	6900

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CTTCATACGT	GCTGGTGGAA	GAGAACCATG	AACAGTCGAC	ATACGGCTAC	CTGATTGAGG	6960
TGGTACACGT	TTAGCGAACA	TAGTGTCTGG	ATCTTGGTGA	GCGTTGTTGT	AGTAGAGGAA	7020
TTGGTTGTTG	TCGTCAGCGT	ATGTCAATTC	AAATGGCATA	GCTTTCAAGA	ACATATCAAT	7080
TTGGTTAACT	GTTAGGATAC	CGTGGTCCAA	TTTGACATAG	GTATCACCAG	AAACAGCACC	7140
AGTGAATGCT	GCAACTTTTT	CTACCCATTC	TGGATCGTCA	GGGTCAACTT	CTGTGATGGT	7200
TGTAGCGATT	GGTTTTCAC	AATCCAAGTC	TTCTGATTCG	ATTGGTTTTG	GTTTTTTCAA	7260
TTTCGAAACG	ACTCCTACGT	ATTTAAACAA	GTTATCTAAG	CAAGTTTCAA	GGAATTTAAC	7320
AGTGCCTTCG	TTGGTGATAT	TTCCGTTGTT	ATCAAAAGCT	TCCTTAGCTT	TACCAAGAAG	7380
GAATTCGTTA	CCTGGAAGCG	TGTAGGCATT	AACACCTGGA	GCATCAAGGA	TTTTACGAAG	7440
GTGAACCTGA	GCACGTGATG	TTCCCTGGTC	ATAGTATGAT	GCACCCACAA	TCATAACAGG	7500
CTTGTTTTCA	AATGGATGAA	CTTCGTATGA	AAGCCATTCA	AGTACAGATT	TGAGTGAAGC	7560
TGAGATAGTG	TGGTTATGCT	CAGGAGTAGC	AATGATAACA	CCATCTGCAC	GAGTAATTTT	7620
GTTATATAAA	TAACGTAATT	GGAACTTTC	ATCCCATTTT	TCATCTTGGT	TAAACATTGG	7680
AACTTCGTCA	ATTTCAAGAA	CTTCTAATTC	AAATTGAGT	TTGAAGTAGC	GACGGATAAA	7740
TTCCAAGAGC	TTACGGTTAT	ATGATTGATC	GTAGTTTGAT	CCAACAAGTC	CAACAAATTT	7800
CATTCTTTTT	GGTCTCCTAT	CTTACAAATT	TTCCCAGTCA	AAGTCTTCAG	CATCTTTGCG	7860
AAGTAATTCT	TGTGCATTAC	GTAATTTTTC	TGTGATTTTT	ACAAAGATAC	GGAAGTCATC	7920
AAAGATGGCA	TCCAATTTCT	TGATAACATC	AAGGTCAACC	AAGTCGCCAC	TTGGGTTAAA	7980
TGCTTGAAGA	GAGTGTGAGA	GCAAGAATTC	ATCTGGAAGA	ACATTTGCCT	TGATTTCAGG	8040
AGCATTC AAG	ATTTGACGAA	GTTGCAATTG	GGCACGAGAT	GAACCAAGCG	TACCGTAAGA	8100
AGCACCTGTA	ATCATGATTG	GTTTGTTCAA	AAGTGGGTAA	ATACCATAAG	ACAACCAAGC	8160
AAGAGCGCTC	ATCAAAACAG	CTGGAATAGA	GTGATCATAC	TCAGGAGTAC	CGATAATAAC	8220
GCCATCTGCC	TCTTCGATTT	TAGCAGCAAT	TTCCAATATT	TCAGCAGGTA	CTTGCTTGTC	8280
AGCTGGTTTG	TTGAAGACAG	GAATGGCCTT	GATTTCAACA	AGTTCAATTT	CAGCTTTGTC	8340
AGTAAAGTGT	TTTTGCATGT	ATTGAAGCAA	TTGACGGTTT	GTAGAACGTT	TTGAATTTGT	8400
TCCAACAATA	GCAATAAGTT	TTAACATGAG	ATTCCTTTC	TCTTTTACA	TAATACAATT	8460
TTAAAATTCC	ATTGAAACAG	TTGTCTCTAT	AGAGTAGGAA	TTCTGAAGA	ACAGCTTAGG	8520
TGGCCTTCTT	TATCGATGAG	GATGACTTCG	ATGCCCTCCA	AACTTTCGAC	TTGCCAGAGG	8580
ATAGAAGCAG	GTCTTTCTCC	AAAGAGTCGA	GTCGTCCAGA	TTTCGCCATC	GACTGATTTA	8640
TCAGAGATGA	TTGTTAGACT	CGCTAGTTCC	GTTTCAACAG	GATATCCTGT	TTGACTGTCA	8700

AAAATGTGAT	GGTAATCTTG	TCCATCGACG	GTCAGGTGAC	G TTCATAAAT	GCCTGAAGTC	8760
ACGACAGATT	TATTGACAAC	AGGGATGGTC	ATTAAATGAT	TTCCCTTAGG	ATTGGCTGGG	8820
TCTTGAATCC	CGATTTGCCA	TGGGTATATCC	CCTCTTGCCT	GATTTTTTCC	AATGGTCAGG	8880
ATATTCCCTC	CCAGATTGAT	CAAGGCAGAA	GTCACCCCTT	CTTCCCTAAG	AAATTGGGCA	8940
ACCTTATCCG	CACTGTATCC	TTTGGCTAAA	CAACCTAGAT	CGATCTTCAT	TCCTTTCTGT	9000
TTTAAAAACA	CAGTAGAAGT	AGAAGAATCT	AACTCGATAC	CATGAGGATT	GATTAGAGGC	9060
AGCACCGATT	CAATTTCTTG	AGGCTGGGCG	ACCTTGGCAT	CTGAAAAACC	GATACGCCAG	9120
GTTTGAATTA	AGGGACCAAT	GCTGATATTG	AGGTGGCTAG	AGAGCGCTAG	GCTATGCTCT	9180
AACCCAAGTG	AAATCAGCTC	AAACAGGTCT	GGATGAACCG	TGACGGGGGC	TATTCCTGCT	9240
TGATAATTGA	TTTCCATCAA	CTCAGATTCT	TGACTATTGG	CGTTGAAGCG	GTATTCAAGT	9300
TCTTTGAGCA	AGTCAAAGGA	TTTTTGGAGA	AAGATATCGG	CTTGCTCATC	CACTAATGAA	9360
ATAGTGATAG	TAGTCCCAT	TAGCCGTTC	GAATGTGAAC	GAAGAGTCAA	GCTACCAACT	9420
CCTTTCTCTT	ATAGAAAATA	AGTTGTAATA	TCAAATAATC	ATCTAAATTG	AAGCCCTTAC	9480
ATTTCATTTT	CATGTTATTA	TAATACCATA	AAGTTAGAAT	TTTCACAAAC	AAAATTTGGA	9540
AAAAGTCAAG	AAATATGCTC	ATAAAATTCA	TCAGGCTTGA	AAACAGGATA	AATGGGGAAT	9600
TATTTTGTAT	AAAAAATGCT	GAAATAATAG	TACCCCTT	GTAAACGCTA	ACGGTAAATG	9660
GTATACTAGT	AAGGTAAATT	TAGAATGAAG	GCAGGAAATT	TTTATGAGTA	AAATCGTTGT	9720
AGTCGGTGCT	AACCACGCTG	GTACAGCATG	TATCAATACC	ATGTTGGATA	ATTTTGGAAA	9780
TGAGAACGAA	ATTGTTGTAT	TTGACCAAAA	CTCTAACATC	TCTTTCCTAG	GATGTGGAAT	9840
GGCTCTTTGG	ATTGGTGAAC	AAATTGACGG	TGCTGAAGGC	TTGTTCTATT	CTGATAAAGA	9900
AAAATTGGAA	GCTAAAGGTG	CTAAAGTTTA	CATGAACTCA	CCTGTTCTTT	CAATCGACTA	9960
TGATAACAAA	GTAGTTACAG	CGGAAGTTGA	AGGAAAAGAG	CACAAAGAAT	CATACGAAAT	10020
ATTGATTTTC	GCTACAGGCT	CTACACCAAT	CTTGCCACCA	ATCGAAGGTG	TTGAAATTGT	10080
TAAAGGAAAC	CGCGAATTTA	AAGCAACTCT	TGAAAACGTA	CAATTCGTGA	AATTGTACCA	10140
AAATGCTGAA	GAAGTTATCA	ATAAACTTTC	TGACAAGAGC	CAACACCTCG	ACCGTATCGC	10200
CGTTGTTGGT	GGTGGTTACA	TCGGTGTTGA	ACTTGCTGAA	GCCTTTGAAC	GTCTTGAAAA	10260
AGAAGTTGTC	CTTGTTGATA	TCGTTGATAC	TGTCTTGAAC	GGTTACTATG	ACAAAGACTT	10320
CACACAAATG	ATGGCGAAGA	ACTTGGAAGA	TCACAACATC	CGCTTGGCTC	TAGGTCAAAC	10380
TGTTAAAGCA	ATCGAAGGTG	ACGGTAAAGT	TGAACGCTTG	ATTACTGACA	AAGAAAGCTT	10440

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TGACGTGGAT ATGGTTATCC TTGCAGTTGG TTTCCGTCCA AACACAGCCC TTGCAGGTGG	10500
TAAGATCGAA CTCTTCCGCA ACGGTGCCTT CCTTGTTAGAC AAGAAACAAG AAACATCTAT	10560
CCCAGACGTT TACGCTGTTG GTGACTGTGC GACTGTTTAT GACAATGCTC GTAAAGATAC	10620
AAGCTATATC GCTCTTGCTT CAAATGCTGT GCGCACTGGT AACGTTGGT	10669

## (2) INFORMATION FOR SEQ ID NO: 58:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 7542 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 58:

CGCGCTAATA GATACTTTAT GATAGAATAA AGAACAAGAT TGACAAGTAA GAGGAAACAT	60
TATGCAAAAT CAAACACTCA TGCAATACTT TGAATGGTAT CTGCCCCACG ACGGTCAACA	120
CTGGACGCGT CTGGCTGAAA ATGCTCCACA CCTAGCTCAT CTGGGGATCA GTCACGTCTG	180
GATGCCACCA GCCTTCAAGG CAACCAACGA AAAAGATGTC GGCTATGGGG TCTATGACTT	240
ATTTGACTTA GGAGAGTTCA ACCAAAAAGG GACTGTCCGC ACCAAGTATG GTTTCAAAGA	300
AGACTATCTT CAAGCCATTC AAGCCCTTAA AGCACAGGGA ATTCAACCTA TGGCCGATGT	360
AGTTCTCAAC CACAAGGCTG CTGCCGATCA CAGGGAAGCC TTTCAGGTTA TCGAAGTTGA	420
TCCTGTAGAC CGTACAGTTG AACTTGGAGA ACCCTTCACC ATCAATGGCT GGACTAGTTT	480
TACCTTCGAT GGTCGCCAAG ATACCTATAA TGGCTTCCAC TGGCATGGT ACCACTTCAC	540
CGGTACAGAC TACGATGCCA AACGCAGTAA ATCTGGGATT TATCTGATCC AAGGGGACAA	600
CAAGGCTGG GCCAACGAGG AATTGGTCGA TAACGAAAAC GGAAACTACG ACTACCTCAT	660
GTATGCCGAC CTAGACTTTA AACATCCTGA AGTCATCCAA AACATCTATG ACTGGGCTGA	720
TTGGTTCATG GAAACGACTG GTGTAGCTGG TTTCCGTTTG GATGCCGTTA AGCATATTGA	780
CTCTTTCTTT ATGCGCAACT TCATCCGCGA TATGAAGGAA AAATACGGTG ACGATTTCTA	840
TGTTTTTGGT GAATTTTGGA ACCCAGACAA GGAAGCCAAT CTGGACTATC TCGAAAAAAC	900
GGAAGAACAC TTTGACCTTG TCGATGTTTG TCTCCACCAG AATCTCTTTG AAGCCAGTCA	960
AGCTGGCGCA AACTATGACC TTCGTGGCAT TTTCACAGAT AGCCTGGTTG AACTCAAGCC	1020
TGACAAGGCT GTGACTTTTG TCGACAACCA CGATACCCAA CGAGGACAAG CCCTTGAGTC	1080
TACCGTTGAA GAATGGTTCA AGCCAGCAGC CTATGCCCTC ATTTTGTAC GCCAAGACGG	1140
CCTTCCATGT GTCTTTTACG GAGACTACTA TGGGATTTCA GGGCAGTATG CTCAAGAAGA	1200



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TTTCAAAGAA ATCCTTGACC GCCTCCTAGC CATCCGAAAA GATTTGCCCT ATGGAGAACA	1260
AAATGACTAC TTTGACCATG CTAACGTAT CGGTTGGGTA CGTTCAGGTG CTGAAAATCA	1320
ATCCCCAATC GCAGTCCTTA TCTCAAATGA CCAAGAAAAC AGCAAGTCAA TGTTCGTCGG	1380
TCAAGAATGG ACTAATCAAA CCTTTGTAGA TTTACTTGGT AACCACCAAG GTCAAGTTAC	1440
AATTGATGAG GAAGGTTATG GACAATCCC TGTCTCAGCT AGATCCGTAA GTGTCTGGGC	1500
AGTCAATACC ATCTAATAGC TCATAATAAC CAAGCTAGGT CCAAGCGGAT TTGGCTTTTT	1560
TGTATTCACA AAAAGACCTA CCCAAATGGA TAGATCTTTA CTTGATTACA ATTTACCTGC	1620
TACTGCATCC AACAAATCTT GGATCTTAGG TTGGTTGCTT CCTCCTGCCA TGGCCATATC	1680
TGGTTTACCA CCACCACGTC CATCGATGAT TGGTGCTAAT TCTTTGACAA GGTTTCCTGC	1740
ATGAAGGTCT TTTGTCTTGC TTGCTACAAG GACATTGACT TTGTCAACGA TAGCGGCAAC	1800
TAGGACAAGA AGATCAGAGT AGTCTTTTGG TTTCCAGTTA TCTGCAAAAG TACGAAGGGC	1860
ACCGGCATCG GATACAGACA CTTGACTAGC AATGTAACGA TGACCGTTGA CTTCTTTAAC	1920
ATCTTTGAAG ATATCGCCTG CGGCTGCAGC TGGCGCTTTT TCTTTCAACT CAGCATTTTC	1980
TTTTTTGAAGT TGACGAAGTT GTTCTTGAAG TCCTTCTACC TTGTGAGGTA CTTCTTGAC	2040
TTGAGGTGCT TTCAAGGTTG CTGCGATAGC TTTAAGAGCA TCCTCTTGTT CACGATAGGC	2100
TTCAAAGGCT TCCTTACCAG TCACTGCCAA GATACGGCGA GTTCCTGAAC CGATTCTTC	2160
TTCTTTGACA ATTTTGAAGA GACCAATCTC AGAAGTGTG TCAACATGAG TACCACCACA	2220
AAGTTCAATA GAGTAGTCAC CGATAGTCAC GACACGAAC TCCTTGCCGT ATTTCTCACC	2280
AAAGAGGGCC ATAGCTCCCA TTTCTTTAGC AGTGTCATA TCCGTTTCAA CTGTCTTCAC	2340
TTCAAGTGCT TCCCAAATTT TCTCGTTAAC TTGCTGTTCA ATCGCACGAA GTTCCTCAGC	2400
AGTTACTGCT TGGAAGTGGG TAAAGTCAAA GCGAAGGAAT TCAACTTCGT TAAGAGATCC	2460
TGCCTGTGTT GCGTGGTTTC CAAGGATATT GTGAAGGGCA GCGTGAAGCA AATGAGTCGC	2520
AGTGTGGTTT TTCATGACAC GGTGACGGCG ATTGCTATCA ATTGCCAAGG TATATTCTTG	2580
GTTCAAGGCA AGCGGTGCAA GGACTTCAAC TGTATGAAGG GCTTGACCAT TTGGGGCTTT	2640
CTGAACATTG GTCACAGTAG CCACAACCTT ACCTGACTCA TCCAAGATTT GTCCGTAGTC	2700
AGCTACCTGT CCACCCATTT CAGCATAAAA TGACGTTTCC GCAAAGATAA GAGAGGCAGT	2760
TCCTTCTGAA ACAGCTCCTA CTTCTGCATT GTCAGCAACG ATAGCTACCA ATTTAGAAGA	2820
CAATTGGCTA GCATTGTAGT TGAAGACACT TTCTACAGTG ATGTTTGTAA GAGTTTCATT	2880
TTGCATACCC ATTGAGCCAC CCTTGACAGC TGACGCACGC GCGCGTTCTT GCTGTTCTTT	2940

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CATGGCTGCT	TCAAAACCTT	CACGGTCTAC	AGTCATACCA	GCTTCTTCAG	CGATTTCTTC	3000
AGTCAATTCA	ACTGGGAACC	CATAAGTATC	ATAGAGTTTG	AAGACATCTG	AACCAGCGAT	3060
AACAGATTGA	CCTTTTCTT	TCAAGTCTGC	TACAATGCCT	TGGGCAAAGT	GTGACCTGA	3120
GTGAAGGTA	CGGGCAAATG	ATTCTTCTTC	GCTCTTAACG	ATTTTCTCAA	TAAAGTCAG	3180
TTTCTCAAGC	ACTTCTGGGT	AGTAGCTTTC	CATGATTTT	CCAACAGTTG	GAACCAATTT	3240
GTAAAGGAAA	GGCTCGTTGA	TACCCAATTT	TTGACCATGC	ATAGAAGCAC	GACGGAGAAG	3300
ACGACGAAGA	ACATAACCAC	GACCTTCATT	TCCTGGAAGG	GCACCATCAC	CGATAGCAAA	3360
TGAAAGAGAA	CGAATGTGGT	CTGCGATAAC	CTTGAAGCTC	ATGTTGTCGC	CATCTTGGTC	3420
ATAAACCTTA	CCAGACAATT	TCTCGACTTC	ACGATAATC	GGCATGAAGA	GGTCCGTTTC	3480
AAAGTTGGTC	TTAGCCCCTT	GGATAACGGC	CACCAAACGC	TCCAAACCAG	CGCCCGTATC	3540
AATGTTCTTA	TGTGGCAATT	CCTTGTATTC	GCTACGAGGA	ACAGCAGGGT	CTGCGTTAAA	3600
TTGTGACAAA	ACGATGTTCC	AGATTTCAAT	ATAACGGTCG	TTTTCAATAT	CTTCTGCAAG	3660
CAGGCGAAGA	CCGATATTTT	CTGGGTCAA	GGCTTCCCA	CGGTCAAAGA	AGATTTCTGT	3720
ATCTGGTCCA	GAAGGTCCCG	CACCGATTTC	CCAGAAGTTG	TCCTCAATTG	GAATCAAGTG	3780
ACTTGATCC	ACTCCCCTT	CAATCCAGCG	GTTGTAAGAA	TCTTTATCGT	CTGGATAGTA	3840
GGTCATGTAA	AGTTTTTCAG	CAGGGAAATC	AAACCATTCA	GGGCTTGTC	AAAGCTCATA	3900
AGCCCAAGTG	ATAGCTTCGT	CACGGAAGTA	ATCCCCGATA	GAGAAGTTCC	CCAGCATTTTC	3960
AAACATGGTA	TGGTGACGCG	CGGTCTTCCC	TACGTTTTTCG	ATGTCGTTGG	TACGGATAGC	4020
CTTTTGGGCA	TTGGTAATAC	GTGGATTTC	AGGGATAATG	GTCCCGTCAA	AGTATTTCTT	4080
AAGGGTTGCT	ACCCAGAGT	TGATCCACAA	AAGAGTTGGG	TCATTTACAG	GAACCAAAC	4140
TACTGATGGT	TCTACTGAGT	GACCTTTGGT	CGCCAGAAA	TCAAGCCACA	TTTGGCGTAC	4200
TTGTGCACTA	GATAGTTGTT	TCATATTGTC	TCCTTATTCA	CTTGTTTAAT	GTGATTGGCT	4260
TTCCAGCATT	TCCACATAGT	CAATCGCGAC	ACAGAGGGAA	ATGACTAGGT	CTGCATAAGC	4320
GTCTTCAAGA	ACCGTTACGG	TATAGGTAGA	AGTCAGATGG	AAGAGTTCCT	TCTTAATTTTC	4380
CGCAATCAAC	TGATCGCGAT	CATCCAGCAA	TTTGAAATTC	AAATCCCAGA	TATTGCCCTC	4440
GATACGAAGA	CCTAGATTAT	CAAACTCATA	CTTATCTCGC	CAGAAGGTCA	ACTTCTTACG	4500
AATGACAAAA	CTCGAGCCAT	CCCGAAGCTG	AATTTCAAAA	CGAGGAAGCA	AGGTCAAGAT	4560
TTCTTTACTA	ATCTCACTGA	CTTGTTCAAC	AGCCGCATCA	TAGATGGTAA	AGGTTTTAGG	4620
AATCTTAAAA	AATGATCCCT	CCACCTGATA	GGCAATTTCT	CCCCTGTCAT	CCTTGATAGC	4680
GAAGCGTTCG	CCTCCAAGAC	GAAACTTTTG	TTTGACAAGA	AATGTTTTC	TCAACACCTC	4740

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CAAAAATCAA	AAGACAAGCT	CATATCACGA	AGGGCGAAAA	ACCGCGGTAC	CACCTTCATT	4800
CAATGAAC TT	GTCATTCTCT	TGTTCTTATG	CAATTGTATG	ATTGAGTAGC	ATGACTTCCT	4860
AGCTTAGATG	GCTCGCAGCA	CCGCCATTTC	TCTGGACTAA	GACAAGTGAA	AATCAATTCT	4920
CAACTTTCTT	ATTATAACGT	TTTTTTAAGC	TTGCGTCAAC	TGGAAATGAT	CTCCGTTGAA	4980
TTAGACCAAT	TCCCTACATC	TCTGATTACT	TTTTCAGGAT	ATATTTTTTC	TTACTGCCAT	5040
TTTTCTTTTT	ATCCCAAATT	TTCATATTAC	TAAACACAGC	TACTAGAATA	TTTCCAAATA	5100
TAAAGGTGCC	TATCACCCAA	TATATGGACT	CAGTTGTTAG	GTATTGTCGA	TCCAAGCCAT	5160
CCTTTAAATG	GAATAGTATA	GCAGTTTGGT	TAACAATCAT	AAAGGTTGGC	CAGAAACTTT	5220
TTTTGAAAAA	AGTAGACATT	TTCAATTATTT	GTTGCCGCTT	TCTGTAAGGT	TAATACTCAA	5280
TAAAAATCAA	AAAGCAAAC T	AGGAAGCTAG	CCTCAAGCTG	TACTTGAGTA	CGGCAAGGCA	5340
ACGCTGACGT	GGTTTGAAGA	GTATAGGCTT	AGTATACTAC	TAGGCAAGCA	AATAAACAAA	5400
TAAACAAC TA	GAATAGAAAA	AGATAGGGCT	CTAAAAACTG	ACTTCTATTC	CTTAAAAACG	5460
AACCAGCTTG	ACTGATTCGT	CTTCTTACGT	TTATCTCCTA	CTTCCGATAC	ATTTTAAACT	5520
GTAGGAAGAG	GTCGCTATAT	TTCCCTGTCC	ATTTATGGTC	AAATTTCTCA	TAAACTTCTA	5580
GGTGTTCAT	GGTTTCAACA	TCGGGATAGA	AGGCCTTATC	TTCTTTTGT	TCCTCTGGGA	5640
GCAATTCCTT	CGCTGGTAGG	TTTGGTGTG	AATAGCCGAC	ATACTCCGCA	TTTTGGAGAG	5700
CATTTTCAGG	TTTCAACATA	AAGTTGATAA	AGGCATAGGC	TGAGTTTGG	TTTTTAACTG	5760
TTTTGGGAAT	GACCATATTG	TCAAACCAA	GATTGCTGGC	CTCTGTCGGT	ACCACATAAC	5820
GTAGATTTTC	ATTTTTTTCT	AACATTTGGC	TGGCTTCACC	AGAGAAGGTC	ACGCCGATTG	5880
CAACATTATT	CTGAATCATA	TAGCCCTTCA	TCTCGTCCGC	AACGATAGCC	TTGATATTTG	5940
GAGTCAGTTT	GTAGAGCTTA	TCCACTGTCT	CTTCCAAC TG	CTGCAGATCC	TTGGAGTTGA	6000
GGCTGTAGCC	GAGGGAATTG	AGTCCTAGTC	CCAGCACCTC	ACGCGCCCCA	TCAAAGAGCA	6060
TGATAGAA TT	CTTATACTCC	GGCTTCCAAA	GGTCATCCCA	ATGCTCAGGC	GCTTCATCTA	6120
CCATGGTTTC	GTGTAGACA	ATTCCTAAGG	TTCCCCAGAA	GTAAGGGATG	GAGAATTTAT	6180
TACCTGGGTC	AAAGGACTGG	TTGAGAAACT	CTGGTCCGAT	ATTTTCGATT	CCTTCAATTT	6240
TTGAATAATC	AAGCGGAACC	AAGAGGTCTT	CGTCCTTCAT	CTTGTTAATC	ATGTATTCAC	6300
TTGGAATGGC	AATATCGTAG	GTCGTTCAC	CCTGCTTTAT	CTTAGTGTAC	ATGGCTTCGT	6360
TGGAGTCAAA	AGTCTCGTAC	TGAACTTGAA	TTCTGTGTTT	TTCTGTAAAC	TGAGTCAAGA	6420
GTTTCAGGATC	GATATAGTCT	CCCCAGTTAT	AGATAACCAA	TTTTTGACTA	TCTCGACTAT	6480

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TGATTTTACT ATCTAAATGA GTCGCAATTC CCCACAAGAC AAGGATAATC GCTGCAATTC	6540
CTGCTAAAAA TGAATAGATT TTTTTCATGC TTGCTCCTCC TTCTCACGAG AGATAAAGTA	6600
ATAACCTACA ACTAGGATAA TACTAAAGAG AAAGACTAGA GCAGACAGGG CATTGATTTC	6660
TAAGGAAATC CCCTTGCGAG CACGAGAGTA AATCTCGACT GATAGGGTTG AAAAGCCATT	6720
TCCTGTTACA AAGAAGGTCA CGGCAAAGTC ATCTAACGAA TAGGTGAAGG CCATGAAATA	6780
ACCAGTAATG ATAGACGGAG TCAGGTAAGG AAGCATGATT TCCTTGAACA TCTGAAATTG	6840
ACTAGCTCCC AAGTCATAGG CCGCATGAAT CATGTCGCCA TTCATTTTCCT TGAGTCGAGG	6900
CAAGACCATC AAGACCACGA TAGGAATGGA GAAGGCCACG TGACTIONGATA GAACGGTCAA	6960
AAAGCCAAGT GAAAACTTGA GTTGGGTAAA GAGAATCAAG AAGCTAGCAC CAATCATAAC	7020
GTCAGGCGCA ACCATGAGGA TATTATTGAG TGATAGAAAAG GCTTCTTGGT ATTTCTTACG	7080
AGACTGGTAG ATGTAAATGG CACCAAAAAGT CCCGATAATG GTCGCTATCA AGGCTGATAG	7140
GAAGGCCAAG AAAAATGTCT GAGCCAAAAT CAGCATGAGT CTCCCATCTC CAAACATGGT	7200
TTCAAAGTGA GTCCAGCTAA AACCTGTAAA GCTATTGATA TCATCACCAG CATTAAAGGC	7260
ATAGCCAATC AAGTAAAAGA TAGGCAGGTA GAGGACCAGA AAGACCAGTC CCAGATAAAG	7320
GTGGCAAAT TTTTTCATCG TTCTCTCCTT TCCTTAGTCA CCCACATGGT GATGAACATG	7380
GTCAGGATGA GAATCACACC GATGGTTGAA CCCATACCAT AGTTGTCATT GGTAGAAAAA	7440
TTCTGCTCAA TAGCCGTCCC CAAGGTGATA ACGCGTTCCT ACCAATCAAA CGGGTCAGCA	7500
TGAAGAGACT CAAACTTGGG ATAAAGACCG ACTGAACCCC GG	7542

(2) INFORMATION FOR SEQ ID NO: 59:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9223 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 59:

AAAACCAAAT TCCGGTATTT TAACCTATGC TGTAAATACC ATGAAGTCTG TCATGACAGA	60
TCAGGTCTAT AACATTAAGG TTGAGACAGA AAATGGAAAT TATGTTGGTG AAGCTAGCCA	120
TGTTTTGGTC CTTTTGACAA ATTACTTCGC TGATAAGAAA ATCTTTGAAG AAAACAAGGA	180
CGGCTATGCC AACATTTTGA TTCTGAAAAGA TGCCTCTATA TTCTCCAAAT TATCCGTCAT	240
TCCTGATTTA TTAAAAGGGG ATGTTGTTCGC AAATGATAAT ATCGAGTATA TCAAAGCGCG	300
TAATATTAAA ATCTCTTCAG ATAGTGAATT GGAGTCAGAT GTTGACGGAG ATAAATCAGA	360

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TAACCTACCT GTAGAAATCA AAGTCCTAGC TCAGCGAGTA GAAGTATTTT CAAAACCGAA	420
AGAGGATTAG TATATAGAGA AAGCCTTTTT TAAGGCTTTT TGTATACTTT AAAAGATAGT	480
TCCTTTAACA ACGGACATTC CTTGCAAATA GTTTTACAAA AATAGTATAC TGGATTCAAT	540
GAGTTTGAAA ACGTTTGCCT AAAATTTGAA TGAATACTTT AGGAGACAAA TTGATGGAAT	600
TGAGTGCTAT TTACCATAGG CCTGAGTCGG AGTATGACTA TC'TTTATAAG GATAAGAAAC	660
TCCATATTCG AATTCGAACT AAGAAAGGGG ACATTGAAAG CATCAACTTG CACTATGGGG	720
ACCCTTTTAT CTTTATGGAG GAGTTTTATC AGGATACAAA AGAAATGGTC AAGATAACTT	780
CTGGTACCTT ATTTGACCAT TGGCAGGTTG AAGTGTCACT TGACTTTGCA CGTATCCAGT	840
ATCTCTTTGA GCTCAGAGAT ACAGAAGGTC AAAATATTTT GTATGGCGAT AAAGGGTGTG	900
TGAAAAATTC TCTAGAAAAT CTTTATGCAA TTGGGAATGG ATTTAAGTTG CCTTAGCTTC	960
ATGAGATTGA TGCTGCAAG g'TTCCTGACT GGGTTTCAA TACGGTATGG TATCAGATAT	1020
TTCTGAAAG ATTTGCCAAT GGCAATGCTC TATTAAACCC AGAAGGGACT TTAGACTGGG	1080
ATTCATCTGT CACACCTAAG AGCGATGATT TCTTTGGTGG TGATTTACAG GGGATTATTG	1140
ATCATATGAA TTACTTGCAA GACTTGGGTA TTACTGGACT ATATCTTTGT CCCATCTTTG	1200
AATCTACAAG CAATCACAAG TACAATACGA CAGATTACTT TGAAATTGAC CGTCATTTTG	1260
GAGACAAGGA GACCTTTTCGG GAACTGGTGG ATCAAGCGCA TCATCGTGGC ATGAAAGTCA	1320
TGCTGGATGC GGTATTTAAT CATATTGGTT CGCAATCTCT TCAATGGAAA AATGTCGTCA	1380
AAAATGGTGA ACAGTCTGCT TATAAGGATT GGTTCATAT TCAACAATTC CCAGTGACAA	1440
CTGAAAAGCT AGTTAATAAG AGAGACTTAC CCTATCATGT TTTTGGTTTC GAGGACTATA	1500
TGCCTAAGCT AAATACAGCC AATCCAGAGG TCAAGAATTA TCTTTTAAAG GTTGCGACTT	1560
ATTGGATTGA AGAGTTTAAT ATCGATGCTT GGCGTTTGGA TGTGGCTAAT GAGATTGACC	1620
ATCAGTTCTG GAAGGATTTT CGTAAGGCAG TTTTAGCTAA AAATCCTGAT CTTTATATCC	1680
TAGGAGAAGT CTGGCATACT TCTCAGCCTT GGCTAAATGG AGATGAGTTC CATGCCGTCA	1740
TGAATTATCC TTTATCTGAT AGTATCAAGG ACTATTTCTT ACGAGGAATT AAGAAGACAG	1800
ACCAGTTCAT CGATGAAATC AATGGAGAGT CTATGTATTA CAAGCAGCAG ATTTAGAGG	1860
TCATGTTTAA TCTCTGGAT TCACATGATA CAGAGCGAAT CCTGTGGACG GCCAATGAAG	1920
ATGTTCAACT GGTAAATCA GCCTTAGCCT TTCTCTTTT ACAAAAAGGA ACACCGTGCA	1980
TTTATTACGG AACCGAGCTA GCCTTGAAGT GAGGACCAGA TCCAGATTGT CGTCGTTGTA	2040
TGCCTTGGGA ACGTGTATCA AGTGACAATG ATATGCTGAA CTTTATGAAG AGGCTGATTA	2100

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AAATTCGGAA ATACGCGTCA GTAATCATTT CGCATGGCAA GTATAGCCTT CAAGAAATCA	2160
ACTCTGATCT AGTAGCTCTG GAATGGAAAT ACGAAGGACG GATCCTCAAA GCAATATTCA	2220
ACCAATCAAC AGAAGATTAT CTTTGTAGAGA AAGAAGCAGT AGCACTAGCA AGCAATTGCC	2280
AAGAATTGGA TAATCAGCTT GTCATCTCTC CAGATGGATT TATGATTTTC TAAAACTAG	2340
TTGATGAAGA TTATGGTACA TTTCATACCT TATATAGTAT AATAAGGCTA GTTACTAAAC	2400
TTGTAAAGGA GAACTTAAAT GAATTGTAGA GGACATGAAA CAAGACAAAG AATTGTTAGA	2460
GATTTTGAAG TTCAGCCTAA AGCACATATT AAGCTGTTAG CAAATCAACA AAAACATAGT	2520
GATGCAGGAG CAACTATTGA AGATGAATAT TATGTATTTA TCGCTGAGAG TAAAAATTGAT	2580
GGCAAGAAGG AAGTTATTC A GTGTGCGATG GGTGCGGCAA GGGATTTTTT AGAACTAATT	2640
AATCACAAAG GGCTACCTCT TTTTAATCCG CTGTAGGTG ATTCTCATGT AAATAATAGA	2700
CAAGAATATG ACAATACAGG GAGTGGAAAT TTATAACCTG AAAAGTGGAA TGAAACTGCA	2760
AAGCAGCTTT ATAATGCTAT AATGTGGTTG ATTATTTTAT GGAATGCTAA GCCGGATACA	2820
CCTTTATTTA ATTTTAAAGA CGAAGTAATT AAGTATAAAA CATATGAGCC TTTTGAAAGC	2880
AGTATAAAAA GAGTAAATAC TACTATAAAG AATGGTAGTA AAGGGAAAAC TCTGACTGAG	2940
ATGATTAAATG GCTACAGAGC GGATAACGAT ATTAGAGATG AAATTTGTAA CTTTAATATT	3000
CTGAAAAATA AAATTCGTGA TATGAAAAAC CAACAAGGAA ATACAATGGA ATCTTACTTT	3060
TAGTTATTGT TGAATTTTGG GTATTCTATA AAATATCCTA ATTGAGATTT AAATAGTAGA	3120
CTATACAATA TAGTTAAAT ATCAGTAAAA ACAACACTTT ATTGAGGTAT TGGATACGCT	3180
TTGCTAATAG CCTAATAATC ACATGTGGAG TGTGCTACA ACGAAAAAGG TGATAATCCT	3240
TGATTTCAAG CTATTTTATA AGCATTTTGT CTTGTAGAT AAAGGCAATT TTGACAATAA	3300
AAATCCTAAA AGGTGAATCG TTATAGATGT ATTTGTAGAT ATCGTTTGGC CATCGAAAAA	3360
ATTAATACAA GAATAAATAT TTATAGCTCT TTAGGTGACT TTTATAGAAG TAAAGTTTAG	3420
GATAGAAAAA CAAGAAATAA CGCACCATTT TTGGTGCGTT ATGCTTTTTT ATGCTATAAT	3480
GGATTTATAA AAATAAAGGA GTTTGCTATG ATTGGAAGA ACATAAAATC CTTGCGTAAA	3540
ACACATGACT TAACACAAC CGAATTTGCA CGGATTGTAG GTATTTACG AAATAGTCTG	3600
AGTCGTTATG AAAATGGAAC GAGTTCAGTC TCTACCGAAT TAATAGACAT CATTTGTCAG	3660
AAGTTTAATG TATCTTATGT CGATATTGTA GGAGAAGATA AAATGCTCAA TCCTGTTGAA	3720
GATTATGAAT TGACTTTAAA AATTGAAATT GTGAAAGAAA GAGGTGCTAA TCTATTATCT	3780
CGACTCTATC GTTATCAAGA TAGTCAGGGA ATTAGCATTG ATGATGAGTC TAATCCTTGG	3840
ATTTTAATGA GTGATGATCT ATCTGATTTG ATTCATACGA ATATCTATCT AGTAGAAACT	3900

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TTTGATGAAA TAGAGAGATA TAGTGGCTAT TTGGATGGAA TTGAACGTAT GTTAGAGATA	3960
TCTGAAAAAC GGATGGTGGC CTAATGGAAA TCCAAGATTA TACTGATAGT GAATTCAAAC	4020
ATGCTTTAGC AAGGAATCTT CGTTCACCTGA CAAGAGGAAA AAAGTCCAGT AAGCAACCTA	4080
TAGCGATTTT GCTTGGAGGG CAAAGTGGTG CCGGTAAGAC TACAATTCAT CGTATTAAAC	4140
AGAAAGAATT TCAAGGAAAT ATTGTTATCA TAGATGGTGA TAGTTTTCGT TCTCAGCATC	4200
CACACTATTT AGAACTGCAG CAAGAATATG GCAAAGACAG TGTAGAATAT ACCAAAGATT	4260
TTGCAGGAAA AATGGTAGAG TCTTTAGTAA CAAAATTGAG TAGTTTGAGA TACAATCTTT	4320
TGATAGAGGG AACTTTACGA ACAGTTGATG TTCCAAGAA AACAGCACAA CTCTTGAAAA	4380
ATAAGGGATA TGAAGTACAA TTGGCCTTAA TTGCGACAAA GCCTGAATTG TCGTATCTAA	4440
GTACTCTTAT CCGTTATGAA GAACTGTACA TTATCAATCC AAATCAAGCA CGCGCAACTC	4500
CAAAAGAACA TCATGATTTC ATTGTAAATC ATCTAGTTGA TAACACACGA AAATGGAAG	4560
AACTAGCTAT CTTTGAAAGA ATTCAAATTT ACCAACGAGA TAGAAGTGTG GTATATGATT	4620
CAAAAGAAAA TACAACCTCA GCAGCAGATG TTCTTCAAGA GTTACTCTTT GGGGAGTGGA	4680
GTCAGGTAGA GAAGGAGATG TTGCAGGTGG GGGAAAAGAG ACTTAATGAA TTACTTGAAA	4740
AATAACAAT TGATATTTT AGGAGAATAG AAATGAGAGG GTTTAATAAC AAGATAAAGT	4800
CTGTTTATCA AGAACTAACA AATTCCAAAG AGAAATTCGG TAGCTTTCAC AAGACTTTAA	4860
TTCATTTGCA TACACCTGTT TCTTATGATT ACAAGCTATT TTCTAATTGG ACTGCAACGA	4920
AATATAGAAA AATTACTGAA GATGAACTAT ATGATATATT TTTTGAAAAT AAGAAAATAA	4980
AAGTTGATAA GACAATTTTT TTTAGTAATT TTGATAAGGT TGTTTTTTCT AGTTCAAAAG	5040
AATATATTAG TTTTCTTATG TTAGCAGAGG CAATCATAAA AAATGGAATA GAAATAGTTG	5100
TAGTAACCTGA TCATAATACT ACCAAAGGTA TTAAAAAGTT ACAAATGGCA GTCTCAATCA	5160
TAATGAAAAA TTATCCGATT TATGATATAC ATCCTCATAT TTTACATGGA GTAGAAATTA	5220
GTGCAGCAGA TAAATTGCAT ATTGTATGTA TATATGATTA TGAACAAGAA TCATGGGTTA	5280
ATCAATGGTT AAGTGAAAAT ATTATAAGTG AGAAAGATGG AAGTTATCAA CATTCACCTGA	5340
CTATAATGAA GGATTTCAT AATCAAAAAA TAGTTAACTA TATTGCTCAT TTCAATAGTT	5400
ATGACATTTT GAAAAAGGT TCTCACTTAT CAGGTGCATA TAAACGAAAA ATTTTTCCTA	5460
AAGAAAATAC ACGATTTTGG AGTTTAATAT TAACTCGAAA GAATCTTCGC AACAACTTGA	5520
TATTCTCTAT AAAGAAGTTG GTGTATTAG TTTGGGACAA AAAGTTGTAG CCATGCTTGA	5580
TTTTTTATTA GCATATAGTG ATTATTCTAA AGACTTCAGA CCATTGATTA TTGATCAGCC	5640

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TGAAGACAAT CTAGACAATC GTTATATTTA CAGGCATTTA GTTCAGCAGT TTAGAGATGT	5700
GAAAGCTCAA CGTCAAATTA TTTTAGCAAC ACATAATGCT ACAATTGTAA CAAATCTAT	5760
GACAGATCAA GTTGTATTAT TGGAGTCAGA TGGAGTTAAC GGATGGATTG AATCACAGGG	5820
ATATGTTAGT GAAAAATATA TAAAAAATCA TATCATCAAT CAATTAGAGG GAGGAAAAGA	5880
TTCCCTCAAG CATAAAATGT CTATATATGA GACGGCTTTA TCAGAGTAGA GTCAGAAAAA	5940
GTAGGTTAGA AATTAGCCT ACTTTTTTCT TTGTCCGACA GGCATAGTGT ACATCTGAGG	6000
TCCAAGTCCT CTGTGGATAT TTGCTGCAGA TGAAACCAAT AGCGACTCCT AAGCCTGAAT	6060
ATCGTGAGGT AGGGGGGATA GGAAGGAATT AGCGAAATCA AGGTTCTACA AACAGAATCG	6120
TGACTTGAAG CCATATATAG CGGATGAGGA ACTCTAAAAT CCAAATAGGT GTCGTAACCT	6180
ATATACGTAA ATTACGAGAG TAAACTAGGA AAGATGTACG GCTTATTCCG TGAGCGTTTA	6240
GGACGTAGTA CAACGAATCA TGGGAGTCAG CTGAACACAT AGTATTGAAG AAATTTCTGT	6300
AATGGAATG GAGCGAAGAA GTGAACAATT AAATGAATAC CTCTCTAATT AAATTTGTCA	6360
ATTCTAATTC CTGGTATGAA AAGACAGTGA CCTGAAAATG TAAACGATGG GAGCTGATCA	6420
TAAATATAGG ACGGTACATG CAGTGGTGTT AGAGATTAGT CCTTACTTGA TTTGTGATAA	6480
CTTCCCCAAA TTTCTTCTGC TATACTTTTC TCAACTTTTA AAAATCCAAC TAAGAATTTT	6540
ACCTGGGGGT TTGGGGGCGG AGCACTAAGT TATCTTATCG TTAGCTGTCA AACTGGTAG	6600
GTTTGTAGTAG GCTGGCGATA TGATTTTTGG GATATTGTGG ACACAATATC TGAGCTCGCA	6660
AAGCCTTACA AGAATGAAAA TCAGTTGTTG GAAAAGTGTA CTGACATTGT ATGGTAGCTC	6720
ACATTGTGAG TACAAGTATT TTGGAAAGGA AGTAGCAGTA TGAAACGAGA TGTGCGTGAT	6780
ATTCGGAAC AATTTCGTTT AACAGAAGCA GAAGAAAAGC AAATCTAGC TTTGATGAGA	6840
GAGCGGGGAG AGACTAATTT CTCTGATTTT CTTCGTAAAA GTTTACTTTC CTCTGATTTA	6900
CAAAAACAGA TGGAGACATG GTTTGCCCTC TGGCAATCCC AAAAAGTAGA ACAAATCAGT	6960
CGTGACGTTT ATGAAGTTTT AATCTTGGCA CAGTCAGAAC GTCAAGTCAC CCAAGAGCAT	7020
GTATCTATTC TCTTAACGTG CGTGCAGGAA TTGATTCAAG AGGTTGCAAA CACCATACCC	7080
CTCAGTAAAG AATTTCGTGA GAAGTACATG AGGTAAGCAC ATGGAACATC GTTACCGAAC	7140
CAATCTCAAG AAAGTGTTTT TGTCTGATAG TGAGTTGAAC CAACTAAATA TAAATATCGA	7200
TCAAAGTGGT TGTAAATCCT TTTCTGAATA TGCAGACGA ACTCTACTCG ATCCTGGTAT	7260
GAATTTTATC ACGATTGACA CAAACGGTTA CCAAGATTTA GTGTTTGAGT TAAAGAGGAT	7320
TGGCAATAAT ATCAACCAGA TTGCTCGAAG TGTAAATCAA TCTCAGTTAA TTTCTGGTGA	7380
AGAATTGCAG GAGTTGAAAA AAGGAATTGG TGAATTGATA AAAGAAGTTG ATAAGGAATT	7440



519

TAATCTGCAA GCGCAGAAGC TAAAGGAGTT CCATGGTCAT CACTAAACAC TTTGCCATTC	7500
ACGGAAAGAG TTACCGCAGA AAGCTTATCA AGTACATTCT CAATCCTGAG AAAACCAATA	7560
ATCTTGCCCTT GGTGTCGGAC TATGGCATGA AGAATTTTCT GGACTTTCCT AGCTATGAGG	7620
AAATGGTGCA GATGTATCAT GAAAATTTCA TCAGCAACGA TACGCTTTAC GATTTTCGCC	7680
ACGACAGGAT GGAAGAAAAT CAACGAAAAA TACACGCTCA CCACATCATT CAGTCTTTCCT	7740
CGCCAGAGGA TCATATCACT CCTGAACAAA TCAATCGGAT AGGTTATGAG ACTGTGAAGG	7800
AATTAAGTGG TGGCAAATTT CGTTTATATCG TTGCGACCCA TGTTGATAAA GACCACCTGC	7860
ACAATCACAT CATTATCAAT TCAGTAGATA GCAATTCTGA CAAAAGCTC AAGTGGGACT	7920
ACAAGGTGGA GCGAAATCTT CGCATGATTT CTGACCGTTT TTCTAAAATC GCAGGTGCTA	7980
AAATCATTTGA GAACCGCTAT TCTCACCAGC GGTATGAAGT CTATCGTAAG ACTAATCACA	8040
AGTATGAACT CAAGCAGCGA CTCATTTTTT TGATGGAACA TTCTAGGGAC TTTGAGGATT	8100
TCAAAAAGAA TGCTCCGCTA CTACATGTGG AGATGGATTT CCGTCACAAG CATGCCACCT	8160
TTTTTATTAC GGACTCAACT ATGAAACAGG TGGTGCCTGG CAAGCAACTC AATCGCAAGC	8220
AGCCTTACAC AGAAGAATTT TTTAAGAACT ACTTTGCCAA AAGAGAAATA GAAAGTCTCA	8280
TGGAATTTTT ATTGCTGAAA GTTGAGAATA TGGATGATTT ACTTCAGAAA GCAAAACTTT	8340
TTGGACTAAC TATCAATCCT AAACAAAAGC ATGTTTCTTT TCAATTTGCA GGAGTGAGG	8400
TAAAGGAGAC AGAGCTAGAC CAGAAAAATC TTTATGATGT AGAGTTTTTC CAAGATTATT	8460
TTAAAAATAG AAAAGATTGG CAAGCTCCAG AAAGTGAAGA TTTCGTTCAA CTTTATCAAG	8520
AAGAAAAGTT ATCCAAAGAA AAAGAACTTC CAAGCGATGA GAAGTTCTGG GAGTCCTATC	8580
AAGAGTTCAA GAGTAACAGA GATGCCGTTT ATGAATTTGA GGTGGAGTTG TCACTCAATC	8640
AAATTGAAAA AGTAGTGGAT GATGGAATTT ACGTCAAGGT CAAGTTTGGT ATTCGTCAGG	8700
AGGGACTTAT CTTTGTGCCG AACATGCAGC TTGATATGGA AGAGGATAAG GTGAAGGTTT	8760
TCATCAGGGA AACCAGCTCC TACTATGTCT ACCACAAAGA CGCTGCCGAG AAAAATTGTT	8820
ATATGAAAGG TCGAACCTTA ATTAGACAGT TCAGCTATGA AAATCAAACC ATTCCATTAC	8880
GCAGAAAAGC GACAGTCGAT ATGATTAAAG AGAAGATTGC GGAAGTGGAT GCTTTGATTG	8940
AACTGGAAGT AGAAAATCAA TCTTATGTCA CGATTAAAGA TGAGTTAGTG CATGAAGTAG	9000
CAGCGTCTGA ATTGAGAATC AATGAGTTGC AAGAACGAAT GTCAACCTTG AATCAAGTAG	9060
CAGAATATCT ACTGGCTTCA GTTGAAAGTA AGCAAGAAAT GAAATTAAAT CTTTCAAAAC	9120
TGAATATAAC TGAGAATATC AGTGCTAATA TTGTTGAGAA AAAATTGAAG AGCCTGGGGA	9180

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ATCAACTGGA ATTGGAAAGG GGCAGGTATG AAAAGATGGT AGT

9223

(2) INFORMATION FOR SEQ ID NO: 60:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 6827 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 60:

TCTGCTGGCT ACCATCATCT GACTTGGGCA AGACCAAAGT CTTAGTTACA ACTGTATTCT	60
TCTCAGCATT TTCAATAACT GGCAATGCCG ACTGAAGCGT ATCTTTTCTT GTTTTGTAG	120
CTGGTCCAGT TTCTTTTTC TGTCCGCAAC CAACCAGGAC AAAAAGGAAA GCTAGACTAA	180
CAAGAACTAT TTTTTCATT TCTTCTTCT TTCTTTTGA AATTAAAATA GAATAAGACT	240
GGGAAGTGCT CCCAGCCTTG ATGTTTATAG AGTCGCACGC AAACGTGCTT CTGCATTTTC	300
TACATTACGG ACAGAGCGTG GTAGGAAGGC ACGAATATCG TCTTCCTTGT AGCCAACTTG	360
CAGGCGTTT TCATCTACAA GGATTGGGCT CTTTAAAATT CTCGGTGTTT CCATAATCAG	420
ATTGAGAACT TCATTGACAC TCAAATCTTC AATATCCACT CCAAGGGCTT TGGCATAGCG	480
ATTTTAGAC GAAACGATGC TGGCTATTCC GTTATCTGTT TTGGTTAGAA TATCCAGTAA	540
TTCTTCTCTC GTAATTCCTT CTTTACCAAG GTTTTGTCTT TTATAACTTA ACTGGTGGGC	600
ATTGAGCCAG GTTTTGTCTT TTTTACAGCT AGTACAACCT GAGACTGTAT AAATTTTAAT	660
CATGTACCTA CCCCTTTCGC TACATGTTAC TATCAGTTTA GTCTATTATA CCATAAAAAA	720
CATCCGACTT GCGACCTATT TTTAATTTTT TTTGACTTTT TTCGTCATTT TCGTACTTTT	780
TTCTTGACAA ACAACTAAAT GACTATCAAC TCTTTTGGAG CTAGGGTCAA TAATTCACAA	840
CCTGTCTCTG TAATCAGGAT ATCATCCTCG ATACGAACGC CATATTTGCC TTCGATATAG	900
ATACCTGGTT CATCGGTCAA GGCCATACCT GTCTTAATAG TTTCTGTAGA AGTCTGACTA	960
AAGTAGGGTT CCTCATGGAT ATCCAGACCA ATACCGTGGC CAATGCCGTG AGTAAAGTAG	1020
TCACCATAAC CTGCCTCAAT GATAATATCA CGAGGGATTT TGTCAAAGTC ACGGAAACCT	1080
AAGCCTGCCT TAGCTTGGTC AATCAAGGCT TGGTTAGCTT TTAGAACCGT ATTGTAAATC	1140
TCTGCCCTGCT CATCGCTAAC ATGCCCTAGA TAGATAGTCC GGGTCATATC ACTGACATAG	1200
TGGTCATAGA GACAGCCGAA GTCCATGGTG ATGGCTTCTC CCAACTCCAC TGGTTTGTGC	1260
ATTGGATGGG CATGGGGTTT AGAAGAATTG ATACCGCTAG CTAGGATCGT ATCAAAAGAT	1320
AAGCCAGATG CTCCCAACTC ACGCATGCGG AAATCAAGGA AGTTGGCAAT CTCAATTTCA	1380

521

GTTTTTCCTG	GTTTGATAAA	GTCAAGCGCA	TCGCGGAAAG	CTTGGTCTGA	GATAGAACAA	1440
GCCTTGCGAA	TCGCTGCAAT	CTCTGCCTCA	TCCTTAATCA	TACGAAGACC	TTCCACAAAC	1500
TGAGTTTGTG	GAAGCAAGTT	CAAACCTGCA	AAAGCTGCCT	GCATACGGTG	GTAATAAGAC	1560
ACTGAAATCT	CATCTTCAAA	ACCGATACGA	GTCAAGCCCA	TGTCCTTAAC	AATTCCTGCA	1620
ATGACAGCCA	ATTCATCACG	ATCAGCCACA	ATCTCAAAAC	CACTGGTTTC	TTGCTTAGCT	1680
GCGATGATAT	AGCGAGAGTC	TGTCACTAAG	ACCTGACGGT	CACGACTGAT	AAAGACTGTT	1740
CCGTTTGAGC	CCCCAAAACC	AGTCAAATAA	TAGACGTTTT	TAAGATTGTT	GATGATGATA	1800
CCATCTAGTT	CTTTTTCTTG	CATTTTAGCT	AGAAATGCTT	GTACGCGTTT	ATTCATGATG	1860
TAACTTTCCT	TTCAAATAGT	GTCTGTATA	GCTGGCTTCG	TTGGCAGCTA	CTTCTTCTGG	1920
AGTTCCTGTT	ACGATGATGG	TTCCACCACC	GACACCGCCC	TCAGGTCCCA	AGTCAATGAT	1980
ATGGTCTGCC	GTCTTGATAA	CATCCAGATT	GTGCTCGATG	ACGAGGACTG	TATTGCCATC	2040
GTCTACAAAG	CGAGCTAAAA	CCTTGAGCAG	GCGAGCAATG	TCCTCTGTAT	GAAGCCCTGT	2100
CGTCGGCTCA	TCCAGAATGT	AGAAAGATTT	TCCTGTCGAT	CGTTTGTGGA	GTTCGCTAGC	2160
TAAC TTCATA	CGTTGGGCTT	CTCCCCCAGA	AAGGGTGGTA	GCTGGCTGTC	CCAAGGTCAC	2220
ATAGCCTAGC	CCTACATCCT	TGATGGTCTG	GAGTTTGCCT	TGAATTTTCG	GAATGTGTTG	2280
GAAAAATCT	ACCGCATCGT	TGACCGTCAT	ATCCAAGACC	TGCGAAATAT	TCTTTTCCTT	2340
GTAGTGAAC	TCTAGGGTTT	CACTGTTATA	GCGGGTTCCG	TGGCAAACCT	CACAAGCCAC	2400
ATAAACATCT	GGCAAGAAGT	GCATCTCAAT	CTTGATAATC	CCGTCACCTG	AGCAAGCTTC	2460
ACAGCGACCT	CCCTTGACGT	TGAAACTGAA	GCGCCCCTTC	TTGTAGCCTC	GAATCTTGGC	2520
TTCATTTGTC	TGAGCAAAAA	GGTCACGTAT	ATCGTCAAAA	ACTCCTGTAT	AGGTAGCTGG	2580
GTTAGACCTC	GGCGTCCGTC	CGATAGGGCT	CTGGTCAATA	TCAATCAAAC	GGTCGACATG	2640
CTCAATCCCT	GTAATAGTCT	TAAACTTACC	AGGTTTGTCT	GAATTACGGT	TGAGCTTCTG	2700
GGCAATGGCT	TTTTTGAGAA	TGCTGTTGAT	TAGAGTCGAT	TTCCCTGAAC	CCGACACACC	2760
TGTCACTGCG	ATAAATTTTC	CTAGTGGAAA	GCGAGCCGTG	ACATTTTGCA	AGTTGTCTCT	2820
ACGCGCTCCT	ATCACTTCAA	TAAAACGACC	ATTTCCGACA	CGGCGCTCTT	CTGGTACTGG	2880
GATGACACGT	TTGCCTGACA	AGTACTGACC	TGTGATAGAC	TTGCTGTTGC	GAGCCACTTG	2940
CTTAGGTGTA	CCTGCTGCAA	CAATCTCACC	ACCAAAAACA	CCGGCACCAG	GACCAACGTC	3000
AATCAGATAA	TCAGCCTCAC	GCATGGTATC	TTCGTCGTGT	TCCACCACGA	TAAGAGTATT	3060
GCCCCAAGTCA	CGCATCTTTT	TCAGACTGGC	AATCAGGCGA	TCATTGTCCC	TCTGGTGAAG	3120

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ACCGATTGAC	GGCTCGTCTA	GGATATAGAG	GACACCTGAT	AGGTTGGAAC	CAATCTGGGT	3180
TGCCAAACGA	ATGCGCTGAC	TTTCCCCACC	TGAAAGGGTT	CCTGCTGAAC	GTGACAGGGT	3240
TAGATAGTTA	AGACCCACAT	TATTAAGGAA	GGTCAAACGA	TCCTTGATTT	CCTTGAGAAT	3300
GGGACGAGCA	ATGATGGCTT	CATTTTCAGA	CAAAGTTAAC	TGGCTCACCA	AGTCCAAGTG	3360
GTCAGCGATA	GACAGGTCTG	AGATTTCTCC	AATATGTGGC	CCTTGCTGGC	CGCCACACG	3420
GACAGACAAG	GCCTGGTCAT	TGAGACGATA	GCCTTGACAG	GTTCCGCAGG	TCAGCTCATT	3480
CATGTAGAGA	CGCATCTGAG	TGCGAGTGTA	ATCGCTATTG	GTTTCATGGT	AACGACGTTT	3540
GATATTATTG	ATAACTCCCT	CAAACGGAAT	GTCGATATCG	CGCACGCCAC	CAAATTCATT	3600
CTCATAGTGG	AAATGGAATT	CCTTACCATC	TGACCCATAG	AGAATCAAGT	TCTTATCTTC	3660
TTCTGACAGG	TCCTCAAAAG	GCTTATCCAT	AGCCACTCCA	AAGACTTTCA	TGGCCTGCTC	3720
TAACATGTTT	GGATAGTAGT	TGGATGAGAT	AGGATTCCAA	GGTGCTAGCG	CTCCCTCACG	3780
TAAGGTTTTG	CTAGCATCTG	GCACTACCAA	ATCAGTATCC	ACCTCCAGCT	TGATGCCCAA	3840
GCCGTCACAC	TCACTACAAG	AGCCAAAAGG	AGCATTGAAA	GAAAAGAGAC	GAGGCTCTAA	3900
CTCTGGGACA	GTAACCAC	AACTGGACA	GGCATAATGC	TCAGAGAACA	ACAACTCCGA	3960
GTCGTCCATG	GTGTCGATAA	TGACATAACC	TTCTGCAATA	CGAAGGGCAG	CCTCAATGGA	4020
ATCAAAGAGA	CGACTACGAA	TGCCCTCCTT	GATAACAATA	CGGTCAACCA	CGACATCGAT	4080
ATTGTGTTGC	TTGCTCTTAG	ACAACTCTGG	CACTTCGGTC	ACATCATAGA	CTTCCCCATC	4140
CACACGGACA	CGAACATACC	CGTCTTCTG	AACCTTCTCG	ATAACACTCT	TATGTTGGCC	4200
TTTTTTCTTG	CGGATGACAG	GAGCCAAGAT	CTGCAAGCGC	TGGCGTTTCA	GTAAGTCCAA	4260
AACCTTATCA	ACGATTGCT	CCACAGAAGA	AGCATTGATA	GCTCCATGTC	CGTTGATACA	4320
GTAAGGCGTC	CCCACACGTG	CGTAGAGGAG	ACGCAGATAG	TCATTGATTT	CAGTCGTCGT	4380
TCCCACCGTC	GAGCGAGGAT	TTTTACTAGT	CGTTTTCTGG	TCGATGGAAA	TAGCTGGGCT	4440
GAGACCATCA	ATGGCATCTA	CATCTGGTTT	TTCCATATTT	CCCAAGAACT	GACGAGCGTA	4500
GGCGGACAAA	CTCTCTACAT	AGCGACGTTG	TCCCTCCGCA	TAGAGAGTAT	CAAAAGCCAG	4560
ACTGGACTTC	CCTGAACCTG	ACAAGCCAGT	CACGACAACC	AACCTGTCTC	GCGGAATCTC	4620
CACATCAATA	TTTTTTAAAT	TATGGGCACG	CGCCCATGA	ATGACAATTT	TATCTTGCAT	4680
CTTGTTCTT	TCTAGTCCAT	TATTGCTTAC	CATTATACCA	AAAAAGTGA	GATTCTATTA	4740
CCCAAAAGGC	CGATTTTGTA	GTATAATAGT	ACAGTGTGAA	AAAATCTGAA	AAATGAGAAA	4800
GGATAAGGGA	TATGAAACAA	GTTTTTCTCT	CTACAACAAC	TGAATTTAAA	GAGATCGATA	4860
CGCTTGAACC	GGGTACTTGG	ATCAATCTCG	TCAATCCGAC	TCAAAATGAA	TCACTCGAAA	4920

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TCGCCAACAC	CTTCGATATT	GATATTGCTG	ACCTTCGAGC	ACCGCTCGAT	GCGGAAGAAA	4980
TGTCTCGTAT	TACCATTGAA	GACGAGTATA	CCCTGATTAT	CGTAGACGTG	CCGGTCACGG	5040
AGGAAAGAAA	TAACCGCACC	TACTACGTAA	CCATCCCGCT	TGGTATTATC	ATCACTGAGG	5100
AAACCATTAT	CACTACGTGT	TTGGAACCAC	TACCTGTCCT	TGATGTCCTT	ATCAACCGTC	5160
GATTGCGTAA	TTTCTATACC	TTTCATGCGTT	CACGTTTTAT	CTTTCAAAT	CTTTATCGCA	5220
ATGCAGAGCT	TTACCTAACA	GCCCTTCGTT	CAATCGACCG	CAAGAGTGAA	CAAATCGAAA	5280
GTCAACTGCA	TCAATCAACT	CGTAATGAAG	AATTGATTGA	GCTCATGGAA	TTGGAAAAAA	5340
CTATCGTCTA	TTTCAAGGCC	TCCCTCAAAA	CAAATGAGCG	CGTGATTAA	AAATTGACCA	5400
GTTCAACCAG	CAATATCAAG	AAATACCTTG	AGGACGAAGA	CCTGCTTGAA	GACACCCTGA	5460
TTGAAACCCA	ACAGGCCATC	GAGATGGCAG	ATATTTATGG	AAACGTCCTG	CATTCTATGA	5520
CAGAGACCTT	TGCTCTATC	ATTCTAACA	ACCAGAACAA	CATCATGAAA	ACCTTGCCCC	5580
TTGTGACCAT	CGTCATGTCC	ATCCCAACCA	TGGTCTTTTC	TGCTACGGG	ATGAACTTTA	5640
AGGATAATGA	AATCCCCCTA	AACGGAGAGC	CAAATGCCTT	CTGGTTAATC	GTCTTTATCG	5700
CCTTTGCTAT	GAGTGTCTCG	CTCACTCTCT	ATCTCATCCA	TAAAAAATGG	TTCTAAGAGG	5760
AGTTCCTATG	TCTCAAATTG	ATCTACAAAA	ATLAACTAAG	AAAAACCAAG	AGTTTGTCCA	5820
CATTGCTACC	CAACAATTCA	TCAAAGATGG	GAAAACAGAC	GCTGAAATCC	AGACTATTTT	5880
TGAGGAAGTC	ATTCCCCAAA	TCCTTGAGGA	GCAATCTAAA	GGTACAACCTG	CCCGTTCCCT	5940
ATACGGCGCA	CCAACTCATT	GGGCTCATAG	CTTCACTGTC	AAAGAGCAGT	ACGAAAAAGA	6000
GCATCCAAAA	GAAAATGATG	ACCCAAAAC	GATGATTATG	GA CT CAGCTC	TTTTCATCAC	6060
TAGCCTCTTT	GCCCTTGTC	GCGCCCTCAC	AACCTTCTTT	GCGGCAGACC	AAGCTTTCGG	6120
CTATGGATTG	ATTACTCTTC	TATTAGTTGG	ACTGGTTGGT	GGATTTGCCT	TCTACTTGAT	6180
GTACTACTTT	GTTTACCAAT	ACTATGGACC	AGATATGGAT	CGCAGTCAAC	GTCCACCTTT	6240
CTGGAAATCT	GTACTAGTTA	TCCTAGCTTC	TATGTTCCCT	TGGTTGCTTG	TCTTCTTTGC	6300
AACAAGCTTC	CTACCAGCTA	GCCTTAACCC	AGTACTGGAT	CCATTGCCAC	TAGCTATTAT	6360
TGGAGCAGCC	CTCCTAGCCC	TTGCGTTCTA	TCTCAAGAAA	CGCTTGAATA	TCCGTAGTGC	6420
AAGTGCAGGA	CCAACACGCT	ATCAAGAATA	AGAAAACGAT	AAAAGCAACT	GCAGGTGCGG	6480
TTGCTTTTTC	ACTTACTTTT	TTGAGTTATA	TTCAATGAAA	ATCAAAGAGC	AAACTAGGAA	6540
GCTAGCTGCA	GGTTGCTCAA	AGCACAGCTT	TGAGGTTGCA	GATAAACTG	ACGTGGTTTG	6600
AAGAGATTTT	CGAAGAGTAT	TAAAAGTATT	CTTCTGAAAT	CCCACATAGC	TTTCTCTTAT	6660

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ATTTTGTGAT AAAATAGGCT CAATCTATTT CTAGGAGGAT GAGATATGGT TTCTACTATT	6720
GGTATTGTTA GTTTATCTAG TGGCATTATC GGAGAGGATT TTGTCAAACA CGAAGTGGAC	6780
TTGGGTATCC AACGTCTCAA GGATCTGGGA CTCAATCCCA TCTTTTT	6827

(2) INFORMATION FOR SEQ ID NO: 61:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11864 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 61:

CTGGCTAGTT GCATAGAGCA AAGTGCTTC TTCATCAACA AAACCGTTCA TTTCAAATA	60
GGAAAGCAGC TCATCAGGAC TCTCCAAACG AATCCCTTTG TAATCCAGCT CAACTGCCAC	120
CTCTTTCAAG GCTGCAAGAA GAAGTGTTCC CAGGCCCTGT CTCTGATGGT CAAACTCGAT	180
GACTAAAGAA TGTACTTTTA GACATTGCGG ATTGTCTGAC TGGGGACTTG ATAAAATATA	240
GCCTAAAGT TGATTTTCAT CCCTAGCTAG AAGAAAGGTA TCCGCACACT TACGGATACT	300
TTCTTCTAAA ATATGGGAAA GTTGCTGCTT TTCAGCTGGA AAAGACGAGG TCTGAAGTGC	360
CCCTATCTCA GGCAAATCAG ACTTGCTTGC CTGAATGATC TTAATTGGAA TTTCCATGGG	420
AACATCCTAT TGAACATTGC TTGTCAAGTT AGACAAGAGA CGCTCAAATG AGTATTCATA	480
GGTTTGGATG TCTCCTGCTC CCATAAAGAC GTAAACAGCA TTGTCATGGT CTAGGAGTGG	540
AGAAACATTT TCAACAGTAA TCACTTGGTG TTTTGTGTG ATTTTGTGG CTAGGTCTTC	600
TACCTTAACG TCACCATGAT CTACTTCACG AGCCGAGCCA TAAATTTGCG CTAGATAAAC	660
AGCATCTGCT TGGTTTAAAG CATGGGCAAA GTCGTCCAAC AAGGCAATGG TTCTTGTAAG	720
GGTATGCGGT TGAAAGACTG CTACAATTTC CTTGCTTGGG TATTTCTGAC GAGCCGCATC	780
CAAGGTCGCA ATAATTTCTG TTGGATGGTG GGCAAAGTCA TCGATAATCA CTGTATCATT	840
GACAATTTTC TCAGTGAAAC GACGTTTAAAC ACCGGCAAAT GTTTTCAAGT GCTCACGCAC	900
CAAGTTCAAA TCAAATCCTG CTGTGTAAAG AAGACCAATA ACGGCTGTCG CATTCATGAT	960
ATTGTGACGA CCAAAGGTTG GAATGTGGAA TTGCCCAAG TTTTGTCCAC GGAAATGAAC	1020
GGTGAAGGTT GAACCAGTTA TTGAACGAAG AAGATCACTA GCTACAAAGT CATTGCCTTC	1080
AGCTTCAAAA CCATAATAAT AAATGGTGC ATCAGACGTA ATCTTACGCA ATTCAGCATC	1140
TTCAACCATAG ACAAAAAGAC CCTTGGTGAT TTGTTTGGCA TAGTCGTTAA AGGCATTAAA	1200
AACATCCTCG AGACTTGTGA AATAATCTGG ATGGTCAAAG TCAATGTTGG TGATAATAGA	1260

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GTATTCTGGG	TGGTAAGGCA	TGAAGTGACG	CTCATATTCG	TCAGATTCAA	AGACAAAATA	1320
TTTGGCATTG	GCCGAACCAC	GACCTGTCCC	ATCTCCAATC	AAGAAGCTGG	TATCTGTAAT	1380
GTGAGACAAG	ACATGAGACA	ACATACCTGT	CGTTGAAGTT	TTTCCATGTG	CTCCTGCTAC	1440
TCCCATGCTA	ACAAAGTCAC	GCATAAAGCT	ACCTAGAAAC	TCATGGTAAC	GTTTGTAGCT	1500
GATACCATTT	TGGTCCGCAT	AGGCAATTTC	GACGTTGTTA	TCTGGACGAA	AGGCATTTCC	1560
AGCGATAATT	TCCATATCAC	CGTCTAGATT	TTTTTCATCA	AAAGGAAGAA	TGGTAATTCC	1620
TGCGTGCTCA	AGACCGCGTT	GGGTAAAGTA	GTACTTTTCA	ACATCTGATC	CCTGAACCTT	1680
GTGCCCCATC	TGGTGCAACA	TCAAGGCCAA	GGCACTCATC	CCTGATCCCT	TAATTCCGAT	1740
AAAATGATAT	GTCTTTGACA	TGTTTTCTCC	CCTATTCTGT	CATTCTGGTC	AGATTCAACT	1800
CTTGGGCAAC	CCGACGTCTT	TGTTCTGTTT	GTTTACTTTT	TTTATTGTAG	ATTTGGCTCT	1860
TCTTTAGAAA	ATCATAATTG	TTTTTCTTTG	GAGCAGGTGC	TGACACTTCT	TCATTCTTGG	1920
TAGGGATAGA	ATGAACTTCT	TCCGCCAAGA	TATAATGAGA	CTGGGTCAAT	TTTTGGCTAT	1980
ATTTGACAAA	TTCACCAGGA	TTTTCTTTT	GGAAAGGAGC	TGTCGGTTGA	TGCGCTGTC	2040
TAACTAGACT	GGGCTGAGAA	TGACGTCTCG	CAAGGCTGAA	ATCCTGAGTT	AGGTAGTTAG	2100
CAGAGCGTTT	CTTTTCAAG	TCCGCACGCG	CTTCTTCACG	CGCCACCTCC	GCATAGCTCT	2160
TTCTTCTTTT	TTTAACCCCT	AAAGGAGCCT	TTTTAGGTTT	TTCGACTTGC	TTTTCAATCG	2220
GTTTTACTGG	TTTTTCTTCA	GCAATAGGAG	CCCATCTTAA	ATAATTTTTA	TCTCGATACT	2280
CACCCTTGAT	ATTACTGATC	AGATCAGACT	CATCATAGAG	ATTCATGACT	GGCATTTTCA	2340
TCAACATGAC	CTCGTCATCT	GACACCAATG	GAAATCGTTC	TTGTTTCATT	TTCTATTTCC	2400
TTTCAACACT	TCATTATAGC	GTATTGTCTT	GATTTTTCAA	GTGCTGGCTT	CAGAAATTCC	2460
CAAAATTTCT	CTAATTTCTG	CTAGGGTCAG	ACTACCACGT	GACTCTGTGC	CGTCCAATAC	2520
TTGTGACACC	AGATGTTTCT	TTTGTCTTTG	GAGTTCCTGA	ATTTTTTCTT	CAATGGTTCC	2580
CTTGGTCACC	AAGCGATAGA	CCTCAACCGT	TTCCTTCTGA	CCCATCCGAT	GGGCACGGCC	2640
AATGGCTTGC	GCTTCCACCG	CAGGATTCCA	CCAAAGGTCA	ACCAAGATCA	CTGTATCTGC	2700
ACCTGTCAGG	TTCAGACCGA	CCCCACCAGC	CTTGAGGGAA	ATCAGAAAGG	CATCTCTTTC	2760
TCCTTGGTTA	AAGGCCTTGG	TCATGTCTTG	TCTTTCCTTG	GCTGGGGTTG	AACCCGTAAT	2820
TTTAAAGGAA	GTCAGGCCCA	AGTCTGGCAG	TTCTTGTTCA	ATTTTTTCCA	ACATTCCTTT	2880
GAACGTGAGAG	AAAATCAAGA	CACGGTGTCC	GCCGTCTGCC	ACCTGTACCA	GTAGGTCTCG	2940
GAGACTATCT	AGTTTGCCGC	TGGCTCCCTG	ATAATCTTCC	ATAAACAGGG	CAGGAGTGTC	3000

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ACATATTTGA	CGCAAGCGCA	TCAAACCAGA	TAAAATTTCC	ACACGACTTC	GCTGAAATTC	3060
CTGTTCTGAC	ACTTGAGCCA	GATGGTCTCG	CATCTGTTGT	AACTGGGCAA	GGTAAATAGC	3120
CTTTTGCTGG	TCTTCCAGTT	CATTTTATA	AACCACCTCA	ATCAAGTCTG	GCAATTCAGT	3180
CAGAACTTCT	TCTTCTTGC	GTCGCATCAC	GAAAGGCTTG	ATAAACTGAG	CCACTCGCTC	3240
TGCTGGCAAT	TTCATAAAT	CTTCTTGCT	TGGCAAAAGT	CCAGGCATGA	CGATTTGGAA	3300
AATAGACCAC	AACTCACCCA	GATGGTTTTC	AATCGGAGTT	CCTGACAAGG	CAAAGACCGA	3360
CGGCACCACA	AATTGTCTCA	AGGTCTGGGC	AATCTTGGTC	TGGGCATTTT	TCATGACCTG	3420
AGCCTCATCT	AAGAAAAGGA	AGTCAAAGGC	CATCCCTTGA	TAAAACTCAC	TGTCCTGACG	3480
GAAGGTGGCA	TAGCTAGTCA	CATAGATTTG	ATGGCTCTCG	GCAAGAATCT	CCTCACGACT	3540
TGCTTTCAAA	CCATGAACAA	CAGTCACATC	CAACTGTGGA	GCAAATTTCT	GAAACTCATC	3600
TGCCCAGTTG	TAAATCAAAC	CCGACGGAGC	GAGAATCAAA	ACCCGACTTT	CTTTTGTCAC	3660
TTGACTAGTC	AAAAAAGCAA	TGGTCTGAAG	GGTTTTCCCA	AGTCCCATAT	CATCAGCCAA	3720
AATCCCACCA	AAACCATAAT	GATGGAGCAT	CTGCAACCAG	CCAATTCCCT	TTTCCTGATA	3780
ATCTCGCAAG	TCAGCCTTGA	CCTGAGTTGC	TTGCAAAGGA	AAGTCCTCTG	GATGCGTCAA	3840
ATCCTGGGCC	AGATTCTGGA	ATTCTTGTGA	AAAAGAAACA	CGGTCTCGCC	CTTCAAAGAG	3900
ATGAGCTAAA	CTGTAGGCCA	AGGATTTCCG	AGCCTGCAAG	GTCCCATCTT	TTAATTCAAA	3960
TTGCCCCAGT	TCCTGTAGAT	TTTGGCGAAT	TTTCTTGGTT	TCTTCATCGA	AAAAGTAAAC	4020
TTGATTAGAC	GAATCAATAT	AAAAATCCTG	ATTGGCAACC	AAGGCCTGCA	TGGCTTGGTC	4080
GATTTCCCTC	TGGACAATAT	TTTGAAAATC	AAACTGGATT	TCCAAGAGAC	CTCCCTTGGA	4140
GGCAATCTGC	ACCTGAGGAC	TCGCTAGGCT	ATAAAGCTCT	TCTAGTTTAT	CTGATAGGTC	4200
AACATGCCCG	AGTTTTTCAA	AGACTGGAAT	GATATCATGA	AAAAAATGAT	AGACAGACTC	4260
CGCTTTTAAG	GCCTGACGCC	AAGATTGAAA	ATCGGCCCTCA	AAGCCCGCAG	CCAAACAGAC	4320
TTGGAATAAT	CTTTCTTCTA	AGTCTGCGTC	ACTTGAAAAG	GGTAATTCTT	CTAGCTCTTG	4380
TCGGCTAGAT	ACCTGTCTAT	TTCCATAATC	AAACTGAATT	TCTAAACGAA	TCCGATTATC	4440
TTCTTCCCTG	TCAAAGTAAA	AAGAGGGCGC	AAAAGTTTGT	ATTGTAGAC	GTTCTGGAGC	4500
TGAAACGGTG	CCCATCTGGA	TAAAAAGAGT	CAGACAGGAG	GCCAATTTGT	CTCGATCACT	4560
GCTATCAAA	TGCAGGTATT	TCTTTCCTTG	TTGACCCACA	GGTAACGCTT	TAATTTCTTT	4620
GAGAAGACGC	ATCTGCTGGT	CTGTTAAAAA	ATAAACCTGA	CCTTTATGGA	AAAGTACTGC	4680
TCCCTGATAA	AAGACATTGA	CCCTAGGACT	CTCACTGATT	TCCATTTCAA	AATAATCCGA	4740
GTATTCTGTT	ACTGTAAAGG	CAATAGATT	GGCATCAGCA	TGCATATCCT	GAAAAAGCAG	4800



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GGTTTGGTAG CTATCCACTT GATGGTCAAA TTGAAAATGG GGCAAGGCCA TCAGTAAATT	4860
CACACCCTGC TCAAAAAGG TCAGAGGGAA AAAGAGGTGC CGACCTTGGT TTTGGAAAAA	4920
GAGGTCTGGA ACCAGCCCTT CCTCCGTTAG TCCGTGCAAG AAAGTCAAAA GTTCTTGGCT	4980
GGCATCATCA AAGGCTTCCC AAGAAAGAGA CTCCTCATAA ATCTTGCCAA TCATATACGA	5040
CTTCTCTGTC TCGACAATCC TTAAAAAAG TGGAAATATCC CGAATGACAT AGTATTTTGT	5100
GCTATTGATT TGGCCGATTC TCAGAGTCCA CAAGATATGA TTGGTTCCTG CTTCCACCTG	5160
ACCCACAGCT GATAACTCAT AGGCGCATTC TGATTTTGA GATAAAATTC GATCCAAAAA	5220
CTTGCCACCC AAGGTCACCT TGGTTTCAAC AGCCTCTTTT TCTTCATGAC CTTCTTCCAG	5280
ACTCCACAAG ATTTCTGAC CACGCTCATC ATTTTTCAGA AAATGCTCTA GCGCTGCCAA	5340
ATGCACACAG TAGCCCTCT TTTGAAAAA ATCACAGGCA CAAAAACCA AATCATCCTC	5400
TAAACTATAG CGCAGTTCTT CTTCTGCAAC GCGAGCGTAG AGCCGATTGT TCTTTTCCTT	5460
GATGATATCA ACCTTACCAG TTTCATAAAG GGCACACCT TCGATACGAA TTTTCCCCGG	5520
AATCAATTTA GCCATATTTT CACCTTTACC TTATCTTTTT ATTATACCAT ATTTTCGCCT	5580
ATGAAAATAG CCTTCTAGGA AGACTTTTCT CCTAGAAGGC TGGATTTTGA ACGTTTGGCA	5640
AAAGTAGCCA CAATCCGCTG ACAGACTTCT TGCAACAGAG ATTTGGGCAT AGCTATATTG	5700
ATGCGGGCAT GGAGACTTCC TTCCTCTCCA AAATCCAAAC CACGGTTGAG GATAACCTTG	5760
GCTTCATTTC TCAACAATC TTGCAATGT TCATCAGTCA GGTCATAAGC TGAAAAGTCA	5820
AGCCAAATCA AGTAGGTACC TTGCGGTTTC ATGACCTTGA TTTTAGTCTC TTTTCCAAAT	5880
AGATCCATCA CATAATTGAT GTGGTCTTCA AAGACTTGCT TGAGTTCCTC TAGCCAATCT	5940
TTACCGTATC GATAGGCAGC TTCTGTCGCC AAATAACCCA AGCCTGAAAT TTCATGCTGA	6000
TTATTGGCCA ACAGGCGTTT CTGGAAAGCC AGTCTCAACT TAGGATTTTC AATGACTGCA	6060
TAGGAATTTT TTGTTCCAGC AATATTAAAT GTTTTAGTGG CACTGCTCAA GACGATAGCA	6120
AAATTTTGA AGGCAGGATT GATGGTATTG AAAGACTGGT GTTTGTGACC AAAGAGGGTC	6180
AAATCTTGGT GAATCTCATC CGAACTAAC AAAACACCGT GTTTTGGCA GAGTTGGCCA	6240
ATCTTCTCCA ACACTTCTTT TTCCCAAACA CGTCCACCAG GATTGTGAGG GTTGCAAAGA	6300
ACATAGAGTT TAACCTCCTC TTCCACCAA TCCTTTTCAA GTTGGTCAAA GTCAATCTCA	6360
AACAGACTAT CCTTTCCAC TAAGGAATTA GTAATCAATC TACGATTATT CAACTTGACA	6420
CTGCGAGCAA AGGGTGGGT GACAGGCGTG TTAATTAAAA CCGCCTCGCC TTCTTTTGTA	6480
AAGGTTTGAA TAGCTGTTGA GATGGCTGGT ACCACACCCT CGATAAAGAC AAGAGCCTCT	6540

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TTGTCAAAGT TGTAACCGTA TTGTGTAGCT TCCCACTTTT GAACTTCCTT AATTAAAGTCT	6600
TCACTGGCAT AGGTATAACC ATAAACCAGT TGGTCTGCGT AAGTTTGCAC GGCTTGGCGG	6660
ATTCAGGCA AGACCACAAA GTCCATATCC GCTATCCAAG CTGGTAGAAC TTCACTATCC	6720
GTTTCTGTTT CTTTCCATTT ATAGGTATGG TGCCCTAAAC GGTGGGCAG GCTTGTA AAA	6780
TCATATTTTC CCATCTTTGT CTTATCCTTC TATGGCTTGG CGCAAATCTG CAATCAAATC	6840
TCTAGCATCC TCAATCCCAA TAGACAAACG CAAGAGGTCA TCTGTCAAAC CATAAGAATG	6900
GCGTACCTCT GCTGGAATAT CAGCATGAGT TTGAGTCGTT GGATAAGTAA TAAGACTTTC	6960
CACTCCACCC AAACCTTCCG CAAAAGAGAA GACCTTGAGA CTGTTCAAAA TATGAGGAAT	7020
GCGTGTTTCA TCGGCTACTT TAAAGGAAAT CATGCCTCCA CGACCAGTGT AGAGAACTTC	7080
CTTAAGTGCT GGAGAATCCT TCAAAAAGGC AACCACTTCT TGGGCGTTAG CTGTTGAGCG	7140
CTCCATACGA AGAGACAAGG TCTTGAGACC ACGAAGCAAC TGGTAGCTGT CAAATGGAGA	7200
CAAGACTGCC CCGTTGTAT TAAGATTGTA AAAAAGCTTC TCGTATAGTT CTAAACTATT	7260
GGTCACAACC ACTCCAGCCA AGACATCATT GTGGCCTGCT AGATACTTGG TTGCTGAATG	7320
GAGAACGATA TCTGCTCCAT CTTCAATCGG ACGTTGGTAG ATAGGGCTAT AGAAGGTATT	7380
GTCCACCACC ACTTTGGCAC CCTTAGCATG AGCCAATTTT GCTAGTTTTT CGATATCAAA	7440
TTCCAACATC AAGGGATTGG TTGGGGTTTC GATATAGAGA ACATCCACAT CCTTTTCTAA	7500
CTCGGCAATC AACTCTTCTT CTGTATTGGC ATAGGTAAAA TGGAAATGAC CTTCTGCTC	7560
CACTTGTTA AACCAGCGAA AAGAACCACC GTAAAGATCA CGCACTGCCA AGACCTTACT	7620
TCCTACTGGA AAGACGCTAA AGGCCAGTAC AATAGCTGAC ATCCCTGAGC TAGTCGCTAG	7680
GGCATAGTCT GCTGACTCAA TAGCCGCCAA GACTTCCTCA GCCTTACTAC GAGTTGGATT	7740
TTTAGTGCGC GTATAGTCAA ACCCAGTAGA TCGACCAAAC TCTGGATGCT GATAGGTCGT	7800
TGAAAAATGA AGTGGTGTCA CCAAAGCACC TGTGCTCA TCAGACTTGA TCCCTGCTTG	7860
TGCTAAAATT GTGTAAATGT GTAATTCCTT GCTCATACAA TTCCTCCAAA TCTATAGTAA	7920
CTATTGTACC ACTTATTTTG TATCCTTCGT TTTCTTGTTT TCAAGAGCTA GTTATAGTTT	7980
CAAACATAT AAAAAGGGAG TTTTTCCTGC TCCCTTTAAT AGACTATAAA ATGGTGAATC	8040
TCAAAAGACA CCTTCACTCT ATCATTGCT CCTGCACAAA ACGAGCATAA CGCTCATGAT	8100
TTTCCAGTAG TTCCTTATGA GTTCCTGAGC CAGTGATTTT CCCCTCCTCT AAGAAGAAAA	8160
TACAATCCAC ATCTTTTACC GTTGACAAAC GATGCGCTAT AATCACAACC GTCTTCTCCT	8220
TTAGTACAGA ATAGAGGCTA CTGATAATCG CATACTCAGA ATCCGCATCA AGATTAGCAG	8280
TGGCTTCATC AAATATAAGA ATTTTCAGCAT CTTTAAAGTA GGCTCTAGCT ATTTGAAGTC	8340

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TTTCGTTTCGC	CCCCCTGACA	AGAGTCGTCC	GCGTTCACCA	ACTTCAGTAT	CTAGTCCCTC	8400
TTTCATGGAG	CGAATCTCAT	CACCTAGTGA	TACTAAGTCT	AGCACTTTCA	TCAATTCATC	8460
ATCAGTTACT	AAGCGATTCA	AACCGAGACA	AAGATTGTCA	CGAATACTGC	CAGATAAGAC	8520
TGCATTATTT	TGTGAAACCC	AAGCGATTTT	ACTTCTCCAT	TCTTTTAAGT	TAAAATCATA	8580
TATACTTGAT	TGCTCCATTA	GAATATCTCC	TGAAAGCGGT	TTATAAAACC	GCTCTAACAA	8640
ACGCACAATC	GTTGATTTTC	CTGATCCAGA	TGGTCCAACA	AAAGCAATTT	TTTGCCCCCTT	8700
GAAAATTGAA	CAAGTAATAT	CCTTTAAGAC	AGGTCGATTT	TCATCATAAC	CAAAATAGAC	8760
ATGGTTAAAA	TTCAACCCCTC	GTCCTGATAC	CGATTTTCCT	CCCTCAAATT	TTTCTTTAGG	8820
AACTGCAAGC	AAGTTCTCCA	GTGCAACTGA	AGATCCCTTG	CTCCTAGAAT	AAACAGTTAC	8880
AAAATTAGCT	ATATTACTAA	TAGGATTAAG	TAATTGAAAG	AGGTAAATCA	AAAACGAAAC	8940
CAAGGTTCCC	ACAGATATAT	ATCCTGCGCT	GACCCGATAA	CCCCCATAGG	TTAGCATCAC	9000
AGCTATAGTC	GCAAAGATAA	ATAAGAGAGC	AAACGGGGTC	TCAAAAGAAG	TAACCCCTATC	9060
TGATTTCACT	GAATTGTTTT	GTACCCTTTC	AATACAATTA	TCCAAAACAT	CCTGTACACT	9120
TTTCTCTGCT	TGGTTAGTCT	TAATTAATTC	ATGTTCTTGA	ATCTTTTCAG	TCAATTGCCC	9180
TGTTAAATTT	CCTCCTGTAA	ACGACGACTA	TACTTTTCAC	TGATATTGGA	AAGGGGCAAG	9240
ATAATAAACA	TCATACAAGG	AAGAGTGATG	AATAAAAGTA	GAGAAAGATT	CCAATCAAGA	9300
CTAAATAAGA	CTACAATGGA	ACCAAGTACC	ATAACTAAAC	TCAGAATAAT	ATTTGGGAAA	9360
GTCGTAATTA	AAACTCACG	AATGACACTC	GTGTCATTGA	CAATGGCAGA	AGTCAACTCC	9420
CCACTTTGGC	TCTTATCAAA	GAAGGATTTT	TCTACATAAA	TCAACCCCTC	TATCACTTTT	9480
TTCTTGATTT	TTGCTATCTT	TTTTTCACCC	GATTGACTAA	ACAGATAGTA	ACCAATAGAA	9540
GAAAACAAGG	CTTGACCAAT	AAAAATCAAA	AACGATTGAA	ATACTTTGGA	GCCTATATTT	9600
TCAATAGAAC	TCCCATCTAT	TAAATCCTTT	AAGATAAGGG	GAAGCAACAA	AGCAAGTAGA	9660
CTAGACAGAA	CAAGTAAGAA	ACTCCCCATA	ATCACCTTAG	TATCTACTCT	TAATAATTTT	9720
AATTTCATAA	ATACTCCTTA	TAATATTTCA	ACGGATAAAG	TCGGGAATAA	CTCAATTTGA	9780
GGATAAAATC	TAATAAATCT	TCCTATAACA	AAACGCATAA	CATCTAGGAT	TTTATATACC	9840
TGATATTATG	CGTTTTTAAG	CACAAAGACT	TCTTACACAA	ACTTATCTAC	AATTAGATTT	9900
TATTTGACAT	GTTTTGCCAA	TTCTTCTTGG	GCTTTTTTAT	TGGATTCTTC	TTTTTCTTTC	9960
AACCATTTTT	CTCTGGCTTT	TGCATATTCG	TCTGTTGTGA	CAATCTTATC	TTGTACTTTG	10020
AGGTATTTAT	ATGATTCAAC	CCCTTTTGTA	CCGGTTAAAC	CATAGGCAGC	AGCAAATGGT	10080

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ACGGTTCTTC	TCAATGATGG	TGTTCCCCCA	CGCGAAACAC	TTGGAAGAAC	TAAAGAACTA	10140
TCAATCAACC	AAGCTTGAAT	ATCAGCATAT	TTCTCATAAC	GTTTGGCCGG	ATCTTGCTCT	10200
TTATTAGCTT	CTTCCAACAT	TTGAGTATAG	ACATCCAGTC	CAACTGCCTT	AGCCTTGTC	10260
TTGGCCTCAC	CAGGCTCTAG	TCCAAGATTT	TGCAGAAATC	CTCCACTATT	AGTATTAAAA	10320
ATATCGAGAT	AGGTGACGG	GTCTTGATAA	TCAGGTCCCC	AACCGCCATG	ATATAAATCA	10380
TAATCTTTCT	GAGCAGCTGT	TTGAGCAAAG	TAGCCTGAAC	TGTCAAATC	ATCTGATGTT	10440
AATTGCTGAA	TGTCAATCAC	TACATTATCA	GAACCTAAAA	CAGATTCAAT	TGATTGTTTG	10500
ATAGAACTAA	CTCCTTGAT	GCCTACTTTA	TCTGTACTTT	CCACAGTCTT	ATCCAAGTGG	10560
ATTGGGAATT	GAACACCTT	TGCTTCGAGT	TCTTTCTTAG	CTTCCGCAA	CTTAGCCTTG	10620
GCTTTCTCAG	GATTGTAGTA	AGGGTCTTGA	CCATCCGCAA	AGTTGATACC	TTGCCATTCC	10680
TTACCATAGT	TGACCATCTT	AGAGGCTACA	ACTTCACCAA	AGTCTTTTCC	CTTGATACTG	10740
ACAAAGTTTG	GAGGAACCAC	TAGGTACGC	AAAATCTTTG	TTGCACCTTC	TTTCCCTTCA	10800
GACTGAGCCC	CATAAGATGT	TCTGTCAAAA	GCAAATTTGA	TAGCCTGACG	GAAGTTTTTA	10860
TTGAGAATCG	CTTCTGAGT	CGATTCTTTT	TCAATGTCAC	TTGTTTTAGA	AGTATAATTG	10920
TAAGACTTCC	TATCTAGGTT	AAAATTAAAG	AAATATGAAG	TTGAATTTTG	CATACTATAG	10980
ATGATATTGT	TTTTGTATTT	TTCTTTAATC	CCTTCATAGC	TGGAGCTGTT	AGGAAAAGA	11040
CGAGCCGTAG	TATAAGCACC	AGCTGTAAAA	TTACGTTCCA	GTGATCTTTG	GTCGCTACCA	11100
TCATAGTAGG	TCAATTTTAC	ATCGTCTACA	AAGACATTCT	TAGCATCCCA	GTAATTAGGG	11160
TTTTTCTTAT	ATTCAATAGC	AGATTTTGAG	ACAAGTGCTT	TCATCAAGAA	AGGTCCATTG	11220
TACAAAATAC	TAGATGGATC	CGCCTTCCCA	AAATCATCCC	CTTTTGATTT	CAGGAAATCT	11280
GCATTAACAG	GAAAAAGTAT	CGTTGCAAGT	GTTTTTGAAT	TCCAGTAAAG	TTCTGGTTTA	11340
ACCAAAGTAT	ATTGAACCGT	TTGGTCATCA	AGTGCCTTGA	CACCGACAGT	TGAAAAGTCG	11400
CTTGTTTTAC	CAGTGATATA	GTCATCCAAA	CCAGCAACAG	AGTCCTGCAC	TAGATACAAG	11460
GCTTCTGATT	TTTTATCAGC	TGCATATTGC	AAACCTGTCA	CAAAATCCTG	GGCAGTTACA	11520
GGCGCATATT	CTTCTCCCTC	AGAAGTAAAC	CACCTGGCAT	CCTTACGAAG	TTTGTAGGTA	11580
TAGGTCAAAC	CGTCCTGAGA	AACAGTCCAA	TCCTCTGCTA	ATGATGGAAT	AATATTCCCA	11640
TATTGGTCAT	TTTCTAATAA	CCCGTCTACC	AAATTGCAA	CAATATCGGA	TGTTGCTGCG	11700
CGGTTTTCTG	CTAGATAGTT	CAAGCTAGAT	GGATCACTTG	AATAAACATA	GTTGTAGGTT	11760
TTTGACGCCG	TGCTAGAATT	TCCACACGCG	CTCAATAAAA	CTCCTGTACC	CAGGACAAGA	11820
CCTGCCAAGG	TTAGATATTT	GCTCTTAGAC	TTTTTCATTT	CCGG		11864

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## (2) INFORMATION FOR SEQ ID NO: 62:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 2412 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 62:

TAACTGCACT AAACATAATA TAAGGAGAGA AAATGTCTGC AATAGAACGT ATTACAAAAG	60
CTGTCTCACTT AATTGATATG AACGATATTA TCCGTGAAGG GAATCCTACT CTACGCGCGA	120
TTGCTGAGGA AGTCACTTTC CCCCTATCTG ACCAGGAAAT CATCCTAGGC GAAAAGATGA	180
TGCAATTCCCT TAAACATTCC CAAGATCCTG TCATGGCTGA AAAAATGGGA CTCCGCGGTG	240
GTGTTGGACT GGCTGCTCCC CAGTTAGATA TCTCAAAACG CATTATCGCT GTT'TTGGTAC	300
CTAATATTGT TGAAGAAGGC GAAACTCCAC AGGAAGCCTA CGATTTGGA GCCATTATGT	360
ACAATCCAAA AATCGTCTCT CACTCTGTTC AAGATGCTGC TCTTGGCGAA GGAGAAGGTT	420
GCCTGTCTGT TGACCGTAAC GTGCCTGGCT ATGTTGTTCG CCATGCCCGC GTTACTGTTG	480
ACTACTTTGA CAAAGATGGA GAAAAACACC GTATCAAAC CAAAGGCTAC AACTCCATTG	540
TTGTTGAGCA TGAAATTGAC CACATTAACG GTATCATGTT TTACGATCGC ATCAATGAAA	600
AAGACCCATT TGCAGTTAAA GATGGTTTAC TGATTCTTGA ATAAAGAAAA TCCCGTTGCA	660
AGACGGGGTT TTGTGTTATA ATAGAGGCAT GAAAACAAAT GATATTGTCT ATGGTGTCCA	720
CGCCGTTACC GAAGCCCTCC TTGCAAATAC AGGAAACAAA CTCTACCTCC AAGAAGATCT	780
CCGAGGTAAG AATGTTGAGA AAGTCAAGGA ACTAGCTACA GAAAAGAAGG TGTCATTTC	840
TTGGACATCA AAAAAATCTC TCTCTGAGAT TACTGAAGGT GCTGTTTCATC AAGGTTTGT	900
TCTACGAGTG TCTGAATTTG CCTATAGCGA GCTAGATTAC ATCCTTGCAA AAACACGCCA	960
AGAAGAAAAT CCACTTCTAT TGA'TTCTAGA TGGTCTAACC GATCCCCATA ATCTGGGTTC	1020
TATCTTGCGA ACAGCCGATG CGACCAATGT TTCAGGTGTC ATCATTCCCA AGCACCGTAC	1080
TGTCGGAGTA ACTCCTGTCTG TTGCCAAAAC AGCCACAGGT GCTATTGAAC ACGTtCCAAAT	1140
TGCCCGAGTG ACCAACCTCA GTCAAACCTT AGGATAAACT TAAGGATGAA GGT'TTCTGGA	1200
CCTTTGGAAC GGATATGAAC GGTACTCCTT GCCACAAGTG GAATACAAAA GGGAAAAATCG	1260
CCCTCATCAT TGGAAATGAA GGAAAAGGTA TCTCTAGCAA CATCAAAAAA CAGGTCGATG	1320
AAATGATTAC CATTCGGATG AATGGACATG TTCAAAGCCT TAATGCCAGT GTTGCTGCGG	1380

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CCATTCTCAT GTACGAAGTT TTCCGAAATA GACTATAAAA AAGTTTCCAG TCATCTGATT	1440
GGAAACTTTT TTATGATTAA CTATGTTCTG TAATGAATTT ATAGGCTTCT TGACCAGCGA	1500
TAGCTCCATC TCCAACCGCT GTTGTTACTT GGCGAAGGTC TTTCAAGCGA ACATCTCCAA	1560
CTGCAAAGAT ACCGTCGACT GCAGTTTTC TGTGGTTATC TGTCACAATC CATCCTGCCT	1620
GATCTTGGAT ATTCAATTCT TTAACAAAAT CGCTAAGAGG GTCCAAACCA ACATAGATAA	1680
AGACACCACC GAAGGCTTGT TCTGTCACTT GACCTGTTTT CACATTTTCA AATACGACTG	1740
ATTCTACTCG GTTTTCACCC TTGATTTCCC TTA CTACAGA ATCCCAGATA AAGCTGATTT	1800
TTTCATTTCG AAAGGCGCGA TCTTGTAATA CCTTTTGGGC ACGAAGTTGG TCACGACGGT	1860
GAACAATGGT AACAGTCTTA GCAAAACGAG TCAAGAAGAG GGCTTCTTCA ACAGCTGAAT	1920
CTCCACCACC AACTACCAAT AAATCTTGGT CACGGAAGAA AGCACCATCA CACACAGCAC	1980
AGTAAGAAAC ACCACGACTG TTCAGTTCTT CTTCTCCAGG CACTCCCAA GGACGGTGTT	2040
TAGAACCAGT TGCTACGATA ACTGTACGTG TTTTCATATG TTGGTCATCA GTCATCACTT	2100
TCTTAAATC ACCATGGCTT CGACATTTT AACATAACCA TAAATGTGCT CAACACCAAG	2160
ATTTTCAAGT GGTTCAAACA TCTTTTCAGC CAATTCAGGT CCACTAATAT TAGCGTATCC	2220
TGGGTAATTT TCGATATCAG ATGTATTATT CATCTGACCA CCTGGCAGAC CACCTTCAAT	2280
CAAAGCTACT TTTAGATTGC TTCGAGCAGC ATACAAGGCC GCAGTCATCC CTGCAGGTCC	2340
AGCACCGATA ATAATAGTAT CGTACATATA GATTCCTTCT TTCTTGGTGT AACTATCTTT	2400
ATTCTAACTC TG	2412

## (2) INFORMATION FOR SEQ ID NO: 63:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7760 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 63:

CCGATTGTTG GGAATTTTGT TCTCATCATT TAGAAGGTGT TGCAAGAGCA GAGTTACCT	60
TGGTGCTTCA TACCAAATTG GGAGAAGCCT CTGTTTGGC AAATATTGTA GATGTAAACA	120
AGGATGAATG GATTTTAGGA ACAGTTGCTG GTGCCAATAC CTTATTGGTT ATTTGTCGAG	180
ATCAGCACGT TGCCAAACTC ATGGAAGATC GTTGTCTAGA TTTGATGAAA GATAAGTAAG	240
GTCTGGGAG TTGCTCTCAA GACTTATTTT TGAAAAGGAG AGACAGAAAA TGGCGATAGA	300
AAAGTTATCA CCCGGCATGC AACAGTATGT GGATATTAAA AAGCAATATC CAGATGCTTT	360

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TTTGCTCTTT CGGATGGGTG ATTTTATGA ATTATTTTAT GAGGATGCGG TCAATGCTGC	420
GCAGATTCTG GAAATTTCCCT TAACGAGTCG CAACAAGAAT GCCGACAATC CGATCCCTAT	480
GGCGGGTGTT CCCTATCATT CTGCCCAACA GTATATCGAT GTCTTGATTG AGCAGGGTTA	540
TAAGGTGGCT ATCGCAGAGC AGATGGAAGA TCCTAAACAA GCAGTTGGGG TTGTTAAACG	600
AGAGGTTGTT CAGGTCATTA CGCCAGGGAC AGTGGTCGAT AGCAGTAAGC CGGACAGTCA	660
GAATAATTTT TTGGTTTCCA TAGACCGCGA AGGCAATCAA TTTGGCCTAG CTTATATGGA	720
TTTGGTGACG GGTGACTTTT ATGTGACAGG TCTTTTGGAT TTCACGCTGG TTTGTGGGA	780
AATCCGTAAC CTCAAGGCTC GAGAAGTGGT GTTGGGTTAT GACTTGCTCG AGGAAGAAGA	840
ACAAATCCTC AGCCGCCAGA TGAATCTGGT ACTCTCTTAT GAAAAAGAAA GCTTTGAAGA	900
CCTTCATTTA TTGGATTGTC GATTGGCAAC GGTGGAGCAA ACGGCATCTA GTAAGCTGCT	960
CCAGTATGTT CATCGGACTC AGATGAGGGA ATTGAACCAC CTCAAACCTG TTATCCGCTA	1020
CGAAATTAAG GATTTCTTGC AGATGGATTA TGCACCAAG GCTAGTCTGG ATTTGGTTGA	1080
GAATGCTCGC TCAGGTAAGA AACAAGGCAG TCTTTTCTGG CTTTTGGATG AAACCAAAAC	1140
GGCTATGGGG ATGCGTCTCT TCGGTTCTTG GATTCATCGC CCCTTGATTG ATAAGGAACG	1200
AATCGTCCAA CGTCAAGAAG TAGTGCAGGT CTTTCTCGAC CATTTCTTTG AGCGTAGTGA	1260
CTTGACAGAC AGTCTCAAGG GTGTTTATGA CATTGAGCGC TTGGCTAGTC GTGTTTCTTT	1320
TGGCAAAACC AATCCAAAGG ATCTCTTGCA GTTGGCGACT ACCTTGCTA GTGTGCCACG	1380
GATTCGTGCG ATTTTAGAAG GGATGGAGCA ACCTACTCTA GCCTATCTCA TCGCACAAC	1440
GGATGCAATC CCTGAGTTGG AGAGTTTGAT TAGCGCAGCG ATTGCTCCTG AAGCTCCTCA	1500
TGTGATTACA GATGGGGGAA TTATCCGGAC TGGATTTGAT GAGACTTTAG ACAAGTATCG	1560
TTGCGTTCTC AGAGAAGGGA CTAGCTGGAT TGCTGAGATT GAGGCTAAGG AGCGAGAAAA	1620
CTCTGGTATC AGCAGCTCA AGATTGACTA CAATAAAAAG GATGGCTACT ATTTTCATGT	1680
GACCAATTCG CAACTAGGAA ATGTGCCAGC TCACTTTTTC CGCAAGGCGA CGCTGAAAAA	1740
CTCAGAACGC TTTGGAACCG AAGAATTAGC CCGTATCGAG GGAGATATGC TTGAGGCGCG	1800
TGAGAAGTCA GCCAACCTCG AATACGAAAT ATTTATGCGC ATTCGTGAAG AGGTCGGCAA	1860
GTACATCCAG CGTTTACAAG CTCTAGCCCA AGGAATTGCG ACGGTTGATG TCTTACAGAG	1920
TCTGGCGGTT GTGGCTGAAA CCCAGCATTT GATTCGACCT GAGTTTGGTG ACGATTCA	1980
AATTGATATC CGGAAAGGC GCCATGCTGT CGTTGAAAAG GTTATGGGGG CTCAGACCTA	2040
TATTCCAAAT ACGATTGAGA TGGCAGAAGA TACCAGTATT CAACTGGTTA CAGGGCCAAA	2100

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CATGACTGGG AAGTCTACCT ATATGCGTCA GTTAGCCATG ACGGCGGTTA TGGCCCAGCT	2160
GGGTTCCTAT GTTCCTGCTG AAAGCGCCCA TTTACCGATT TTTGATGCGA TTTTACCCG	2220
TATCGGAGCA GCAGATGACT TGGTTTCGGG TCAGTCAACC TTTATGGTGG AGATGATGGA	2280
GGCCAATAAT GCCATTTCGC ATGCGACCAA GAACCTCTCTC ATTCTCTTTG ATGAATTGGG	2340
ACGTGGAAC T GCAACTTATG ACGGGATGGC TCTTGCTCAG TCCATCATCG AATATATCCA	2400
TGAGCACATC GGAGCTAAGA CCCTCTTTGC GACCCACTAC CATGAGTTGA CTAGTCTGGA	2460
GTCTAGTTTA CAACACTTGG TCAATGTCCA CGTGGCAACT TTGGAGCAGG ATGGGCAGGT	2520
CACCTTCCTT CACAAGATTG AACCAGGACC AGCTGATAAA TCtACGGTAT CCATGTTGCC	2580
AAGATTGCTG GCTTGCCAGC AGACCTTTTA GCAAGGGCGG ATAAGATTTT GACTCAGCTA	2640
GAGAATCAAG GAACAGAGAG TCCTCCTCCC ATGAGACAAA CTAGTGCTGT CACTGAACAG	2700
ATTTCACTCT TTGATAGGGC AGAAGAGCAT CCTATCCTAG CAGAATTAGC TAAACTGGAT	2760
GTGTATAATA TGACACCTAT GCAGGTATG AATGTCTTAG TAGAGTTAAA ACAGAAACTA	2820
TAAAACCAAG ACTCACTAGT TAATCTAGCT GTATCAAGGA GACTTCTTTG ACAATTCTCC	2880
ACTTTTTTGC TAGAATAACA TCACACAAAC AGAATGAAAA GGAGCTGACG CATTGTCGCT	2940
CCCTTTTGTC TATTTTTTAA GGAGAAAGTA TGCTGATTCA GAAAATAAAA ACCTACAAGT	3000
GGCAGGCCCT GGCTTCGCTC CTGATGACAG GCTTGATGGT TGCTAGTTCA CTTCTGCAAC	3060
CGCGTTATCT GCAGGAAGTC TTAGGCGCCC TCCTTACTGG GAAATATGAA GCTATTTATA	3120
GTATCGGGGC TTGGTTGATT GGTGTGGCCG TAGTCGGTCT AGTTGCTGGT GGA CTCAATG	3180
TTGTCCTCGC AGCCTATATT GCCCAAGGAG TTTCATCCGA CCTTCGGGAG GATGCCTTCC	3240
GTAAAATTCA AACCTTTTCT TATGCTGATA TTGAACAATT TAATGCGGGA AATCTAGTCG	3300
TTCGAATGAC AAATGATATC AACCAGATTC AGAACGTTGT CATGATGACC TTCCAAATTC	3360
TTTTTCAGACT TCCCCTCTTG TTCATCGGTT CGTTTATCCT AGCGGTTCAA ACCTTACCTT	3420
CTCTGTGGTG GGTGATTGTT CTCATGGTAG TCTTGATTTT TGGTTTGA CTGCTCATGA	3480
TGGGAATGAT GGGGCCTCGT TTTGCCAAGT TTCAAACCC TCTTGAGCGC ATCAATGCCA	3540
TTGCCAAGGA AAATTTACGT GGCGTTCGTG TGGTCAAGTC CTTTGTCCAA GAAAAAGAGC	3600
AATTTGCTAA GTTTACAGAG GTCTCAGACG AGCTTCTTGG TCAAAACCTT TACATTGGTT	3660
ATGCCTTTTC AGTAGTGGAA CCCTTTATGA TGTGGTTGG TTACGGGGCG GTCTTCCTCT	3720
CTATTTGGCT GGTGCGGGA ATGGTTCAGT CGGATCCGTC TGTGTTGGT TCCATCGCTT	3780
CTTTTGTTAA TTACCTAAGC CAGATTATCT TTACCATTGT TATGGTTGGA TTTTGGGAA	3840
ATTCTGTCAG CCGTGCCATG ATTTCCATGC GTCGTATTCG AGAAATTCTT GACGCAGAGC	3900



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CAGCTATGAC	CTTCAAGGAT	ATCCCAGATG	AAGAGTTGGT	TGGAAGTCTT	AGCTTTGAAA	3960
ATGTGACCTT	TACCTATCCA	ATGGACAAGG	AACCGATGCT	GAAAGATGTG	AGCTTTACTA	4020
TTGAACCTGG	TCAAATGGTT	GGTGTAGTTG	GAGCGACTGG	TGCAGGAAAAG	TCAACCTTGG	4080
CTCAATTGAT	TCCACGTCTC	TTTGATCCAC	AGGACGGGGC	CATTAAAATC	GGTGGCAAGG	4140
ATATTCGAGA	AGTGAGTGAA	GGAACCCCTGC	GTAAAACAGT	TTCCATCGTT	CTCCAACGTG	4200
CCATTCTTTT	TAGTGGAACG	ATTGCAGATA	ACTTGAGACA	GGGAAGGGG	AATGCTACTC	4260
TATTTGAAAT	GGAGCGCGCA	GCCAATATTG	CCCAGGCTAG	TGAATTCATT	CATCGTATGG	4320
AGAAAACCTT	TGAAAGTCCA	GTGAAAGAAC	GGGGAACCAA	TTTCTCTGGT	GGACAAAAAC	4380
AAAGGATGTC	GATTGCGCGT	GGGATTGTCA	GCAATCCACG	TATTCTGATT	TTTGATGATT	4440
CGACCTCAGC	CTTGGATGCC	AAATCAGAGC	GCTTGGTGCA	AGAAGCTTTG	AATAAGGACT	4500
TGAAGGGGAC	GACAACCATT	ATTATTGCTC	AAAAAATTAG	CTCGGTTGTC	CATGCAGACA	4560
AGATCTTGGT	TCTAAATCAA	GGACGATTGA	TTGGTCAAGG	TACGCATGCA	GACTTGGTTG	4620
CCAACAATGC	CGTTTACCGT	GAAATCTATG	AAACACAGAA	ATGAAAGACA	AACTATAAGA	4680
AAAGTCAATA	GTTTTATCTA	AACTATTTCT	TATTTCAATT	TGATGATTTG	GCGATGATTT	4740
TAGAGCACGG	CAAAAAGCCC	TTGAAAAAGT	CCATTTTTC	AAAGGTAATC	CTGTGTTAAT	4800
TTCAGAAATT	ACATCACTTT	TTGTTCGTCA	AATGGCAGCT	CTTTTTTTAG	GATATAAAAC	4860
AGGGTTCGGA	TAAGTTTTTT	TGCAAGGTGG	ATGATGGCTA	CATTGTAATG	TTTTCTTGT	4920
TCTAATTGAT	TCTTAAGATA	GGCCTTAAAA	GCAGGCGAAA	AGCGAGGGCA	TGCTTTGGCA	4980
GCTTGTATGA	GTACCTACCG	CAGATGAGGG	GAACTCCGTT	TGACCATTCT	TCCTGCTAAA	5040
TCAATCTGAT	CTGACTGATA	AATAGAAGAA	TCCAGTCCAG	CGAAAGCTTG	TAATTGAGCA	5100
GGATTATCAA	AGGCATGAAT	ATTTGGAATC	TCAGCTAAAA	TGACCGCCCC	TAAACGATCC	5160
CCAATCCCAG	TAACCGTCGT	GATGACCGAG	TTGAACTCAG	CCATCAAGTC	ATTGACACAT	5220
GTTTCCGCCT	TGTCATGAG	CCTCTTGTA	TGTTTGATGT	TTTCATTACA	CGAGATAAAA	5280
CGTCTATGCG	TTATCAAACCT	CATTACCAAT	TAAAACAAAA	AGCTGTGGTT	AGATCCTTTC	5340
GGAAATTGTC	AAGCGATTGG	AGGAAATGAA	CTAATCCACA	GCGGCTTATT	CCAAGTATAC	5400
CACTTGGGCT	TTGGCAGTAG	CTAACTGCGC	TAAATATAAT	ATAAGGAGGA	GTAAAATGAA	5460
GACAGTCAA	TTTTTTTGGC	ATTATTTTAA	GGTCTACAAG	TTCTCATTTG	TAGTTGTCAT	5520
CCTGATGATT	GTTCTGGCGA	CTTTTGCCCA	AGCCCTCTTT	CCAGTCTTTT	CTGGACAAGC	5580
GGTGACGCAG	CTAGCCAATT	TAGTTCAAGC	TTATCAAAAT	GGCAATCCAG	AACTTGTATG	5640

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GCAAAGCCTA TCAGGAATCA TGGTCAATCT TGGCCTGCTG GTTTTGGTTC TATTTATCTC	5700
TAGTGTAATA TACATGTGTC TCATGACGCG CGTGATTGCA GAATCGACCA ACGAGATGCG	5760
CAAAGGCCCTC TTTGGTAAGC TTGCTCAGTT GACGGTTTCT TTCTTTGACC GTCGACAAGA	5820
TGGCGATATC CTGTCTCATT TTACCAGTGA TTTGGATAAT ATCCTCCAAG CCTTTAACGA	5880
AAGCTTGATT CAGGTCATGA GCAATATTGT TTTATACATT GGTCTGATTG TTGTCATGTT	5940
TTCGAGAAAT GTGACGCTGG CTCTCATCAC CATTGCCAGC ACCCCATTGG CTTTCCTTAT	6000
GCTGATTTTC ATCGTGAAAA TGGCACGCAA ATACACCAAC CTCCAGCAGA AAGAGGTAGG	6060
GAAGCTCAAC GCCTATATGG ATGAGAGCAT CTCAGGCCAA AAAGCCGTGA TTGTGCAAGG	6120
AATCAAGAG GATATGATGG CAGGATTTCT TGAACAAAAT GAGCGCGTGC GCAAGGCAAC	6180
CTTTAAAGGA AGAATGTTCT CAGGAATTCT TTTCCCTGTC ATGAATGGGA TGAGCCTGAT	6240
TAATACAGCC ATCGTCATCT TTGCTGGTTC GGCTGTACTT TTGAATGATA AGTCTATTGA	6300
AACAAGTACA GCCCTAGGTT TGATTGTTAT GTTTGCACAA TTTTCACAGC AGTACTACCA	6360
GCCTATTATC CAAGTTGCAG CGAGTTGGGG AAGCCTTCAG TTGGCCTTTA CTGGAGCTGA	6420
ACGAATTCAG GAAATGTTTG ATGCAGAGGA GGAATCCGA CCTGAAAAGG CTCCAACCTT	6480
CACTAAGTTG CAAGAAAGTG TTGAAATCAG TCATATCGTT TTTTCATACT TGCCTGATAA	6540
ACCTATTTTG AAAGATGTCA GCATTTCTGC CCCTAAAGGC CAGATGACAG CAGTTGTTGG	6600
GCCGACAGGT TCAGGAAAAA CGACTATTAT GAACCTCATC AATCGCTTTT ATGATGTTGA	6660
TGCTGGTGGT ATTTATTTTG ATGGTAAAGA CATTCGTGGC TATGACTTAG ATAGTCTTAG	6720
AAGCAAGGTG GGAATTGTAT TGCAAGATTC GGTCTTGT TT AGCGGAACGA TTAGAGACAA	6780
TATCCGATTT GGTGTGCCAG ATGCTAGTCA GGAAATGGTT GAGGTAGCAG CAAAAGCAAC	6840
CCACATTCAC GACTATATCG AAAGTTTGCC TGATAAGTAC GATACTCTTA TTGATGATGA	6900
CCAGAGCATC TTTTCAACAG GGCAGAAGCA ATTGATTTCA ATCGCTCGAA CCCTGATGAC	6960
AGATCCAGAA GTTCTCATTC TCGATGAAGC AACTTCAAAC GTAGATACGG TGACAGAAAG	7020
CAAGATTCAG CATGCCATGG AGGTGGTTGT AGCAGGTAGA ACTAGTTTCG TCATTGCCCA	7080
CCGCTTGAAA ACCATTCTCA ATGCAGATCA GATTATTGTC CTTAAAGATG GAGAAGTCAT	7140
TGAACGTGGT AACCACCATG AACTTTTGAA GCTAGGTGGC TTTTATTCAG AACTCTATCA	7200
CAATCAATTT GTTTTCGAAT AAGAAAGAAG TTGTCCTATG TGGGCAGCTT TTTCTTGTC	7260
ATAAAAAATG TTTATCACAG CCTTAAAAA AACATATTAG ACGAAAGTCA TTTTGAGTGA	7320
TATGATAGGA CTATCGTTAG CATTCGAAAG GAGAGGCATC ATGGCTAGAA CGGTTGTAGG	7380
AGTTGCTGCA AATCTATGTC CCGTAGACGC AGAAGGCAAA ATCATTTCATT CATCTGTATC	7440

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TTGTAGATTC GCAGAGATCA TTCGTCAAGT CCGTGGTCTC CCTTTAGTCA TTCCTGTTGG	7500
TGATGAGTCA GTTGTACGTG ATTATGTGGA AATGATTGAC AACTCATT TGCACGAGAG	7560
CCAAAATGTT CATCCTCAGT TTTATGGAGA GAAAAAGACC GTCGAGAGCG ATGATTACAA	7620
TCTGGTCCGT GACGAATTTG AATTGGCACT CTTGAAGGAA GCGCTTCGTC AGAATAAACC	7680
AATTATGGCA ATCTGTCGCG GTGTCCAAC TGTCAATGTT GCCTTTGGTG GAACCCTCAA	7740
TCAAGAAATC GAAGGTCAGG	7760

(2) INFORMATION FOR SEQ ID NO: 64:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2723 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 64:

GAGGTTTAA TTCACTTACC TCTSCGTAT CTTATTAA AATGAATTCT TTTACGGTTG	60
TATTTCTTGC AAAATCTTTT ACAACAATCT TAATGTTTAG TGTCTTGTCT ATTATTTGTT	120
TAATATCATT AAATGATGTA TATCTTTTC CATTTATATA AATATGTTGT TCTGAATCT	180
CACCATCGAA TCCATTATTT CTTTATCAT TGATGTTAAA GACTACAGAT TTTCCATCAG	240
CATATTCGAT ACTAGTATTT CCCTTAGGAT CAATGTTTAC TTCGGGTTTA ACATTATCAT	300
ATAAAACTG ATAGTGGACT CCAACTGCTT TAGCATTCAA ATCGCTATAG CCAGTTTGAA	360
GATAAACATT TCCATCCATA TCTGTTACCT TATCTGGAAA TCCGTTTGCT TTATAGTCTT	420
TCATTCCCA GTCCATGATG TCACCGTCTT TAACATTCAG CTTAATATTA AAATCTCTAG	480
TGTTATCAAT GTGTAAATCT CCGTAGATTA AATAATTATC TACAACCGAT TCATTAACCT	540
TCAATTCCCA GTTAAACCA CCCTTATCAG AAATCTTACC TCTTAAATAA AATTCTGGAT	600
TTCGTACATA AATTTTATTA GATTTAGATG GATTAAAGTA GTTCTTATCC ATTGAAAGGT	660
TTACTGGTTT GGTATCAATA AATAACATGG AGCCATCTTC TTTTATAGCT TCTACATTGA	720
ACTTATCCTC TCCAGTGTAT TCTTTATCAT CCTTACCAA TAATACAAGT TTAGAAGAAT	780
CTGTCACAAG ATTTCCGTCT TTATCGATAG CTTCCCTTT ATCGTTCATT TTAAATGTAA	840
ACACTTGATA CCTTATAATG TTAAAGCCGT CCAAAGCCGA CATTAATACA GATTGGGTAC	900
TTCTTCCATC TTCAACATTT CTACTATCAG CATAAATTGT TGTTCCTGAA AGGGCTCTTA	960
GATTAGGATT GGCCTTTTGT ATTTTGTGTA TATCTTCCTT GCTATAGACT CCATTCCTT	1020

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CTAACATATC CGTTTTTCCA GGATTATAGG TAGTCACTTT TAGTGCATAG CCTTTTCTTA	1080
GAATGATATT ATCCTTTAAC AGATATTGTT GTTTTTCTGA ATCAGAATAG ATTTTACCAG	1140
ATTCCATTTT AGTTAAATTG TCTGGTTTGT TTTTGTGAAAG ATCTCCTTCC CCTAATTCTA	1200
TGACATTCCC ATAAC TTGAT ACATAGGGAT ATTCTGATTT AGTTTCCTTA ATTTTTCAG	1260
GCATTCTAAT TTTAATTTCA GCTTTTTTCT GATCATTATC TTTAACAAAT AATCTCATAT	1320
CTCCTGCAAA AGCTAATCCA TCCACAATAT CATTAAATTT AGCGTATAGA TCAAATGTCA	1380
TCGTTTTTGA GTGGAAATCA TACTTGGTCG CTTTGATTTT TATAGATTTA TAGTTATTCC	1440
CATAATATAC CTTGGCATTT TTAGAAACAT TACTTATCTT TCCAAGAATT TCAAAGTGTC	1500
CATCTTTAGA CGGACTTAGA ACACCATAAA TTTTGTGATTT GATTTCGTCA AGTTTCTCAG	1560
TTTCATATTC TAGATCAGTC CCATCATCGT AGGCTATTAT ATTTCTTTA TCATCGTATT	1620
TATAATCGTA TTCCTCCATT CTCTTACCAG TTTCACTTGT AAAATCATCA ACTTCTCTAA	1680
ATTTCTTTTT AATGAGTTTC TTTAAGTCTT TATTTTCAA GTCTCTAATT GTTGAAATAT	1740
TTCTATCAAT AGTAAACTA GATTTTCTT TAATAGACTC TTCATTTTCT TGATGATGAT	1800
GTTCTACCCC AGTTGTATCT TTTTTTAGAC TACCTCTTT TCCATTTCTT AAATTTTTAA	1860
ATTTAGATTC TGCAATCTCG CCAAGCTTTT GATATTTAGA TGAATCTTGA TCAGGATCTA	1920
CTAGATAATA GGAAATCATC CCCTTTTCAT CAGCCTGATT AGCAAATTTA ATTCTATGAA	1980
TCTTTGTGAA ATTGCTAGAA CCATCTAATG CAATGACTTC AATGATTTTT CCCCTAAAT	2040
CTCCCGCACC TTTAATTTCA TAAATGGTAT TTCCGTCTTT ATCAAGTTTT CTATTTCTTC	2100
CTTGACCTC ACCTGCGTAA GTTACTTCAA GATTTTTTTC AACCTCTCCA TCTTCATTAA	2160
CAAGAGCGGC GCCAGCATAC CAACTTTCGT TCGCAATCTC GTCAAATTTT TCAGGATGTT	2220
CTTTTGTATC TCTCGCAAAT AGCGTTTCAT TCTTATACTG ATCTTTTACC TTATGATAAG	2280
TATCCTTTGT AATCAACTTA ATTTTTCAG GATTTGAAAA ATCAACCGAA ACAATCTTAG	2340
GGGCGGTGTT ATCAATTTTT ACAGGAATAT AGGAAACCTG CCATGGGTAA TCTTTAGTTA	2400
ATCTATATTT AAATTTATAG AAATATTGAC CTTCCGCAAT CGGTTCAAAT TGACCTCTTA	2460
TCTTAGTAGC AGGATCTTGA TTATCCTTAC TTTCTGGTGC ATTTTCTTCT CTACCTCTAG	2520
GATTATAGAT GAGTCCATCC CACTTCAAGT CACCCCAAAC TTTTAGTTTA GATGATTGA	2580
TTCCCTTTGC ATCATTGCTT TTAGAATTTA AAATCCTCT AATAAAGTGT TCTCTCGAAA	2640
TGACTTTTAA GTCTCTTTGA TTTCTCCCT CTTTATTTGT ATTTACTATT GAAATCAATC	2700
CTTCTTCTGC ACTTCTTAAT ACA	2723

(2) INFORMATION FOR SEQ ID NO: 65:

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- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 11831 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 65:

AAAAAAGTGG GAATGACTCA AATCTTCACT GAAGCTGGCG AATTGATCCC TGTAACAGTT	60
ATTGAAGCAA CTCCAAACGT TGTTCTTCAA GTTAAACTG TTGAAACAGA CGGATACAAC	120
GCTATCCAAG TTGGTTTCGA TGACAAACGC GAAGTATTGA GCAACAAACC TGCTAAAGGA	180
CATGTAGCGA AAGCTAACAC GGCTCCTAAG CGCTTCATTC GTGAATTCAA AAACGTTGAA	240
GGCTTGGAAG TTGGTGCTGA AATTACAGTT GAAACATTCG CAGCTGGAGA CGTTGTTGAC	300
GTAACGGGTA CTTCTAAAGG TAAAGGTTTC CAAGGTGTTA TCAAACGCCA CGGACAATCA	360
CGTGGACCAA TGGCTCACGG TTCTCGTTAC CACCGTCGTC CAGGTTCTAT GGGGCCTGTT	420
GCACCTAACC GCGTATTCAA AGGTAAAAAC CTTGCAGGAC GTATGGGTGG CGACCGCGTA	480
ACAATTCAAA ACCTGAAGT TGTACAAGTT GTTCCAGAAA AGAACGTTAT CCTTATCAAA	540
GGTAACGTAC CAGGTGCTAA GAAATCTCTT ATCACTATCA AATCAGCAGT TAAAGCTGGT	600
AAATAATAAA GAAAGGGGAA ATCAGTCACA ATGGCAAACG TAACATTATT TGACCAAAC	660
GGTAAAGAAG CTGGCCAAGT TGTCTTAGC GATGCAGTAT TTGGTATCGA ACCAAATGAA	720
TCAGTTGTGT TTGATGTAAT CATCAGCCAA CGCGCAAGCC TTCGTCAAGG AACACACGCT	780
GTAAAAAACC GCTCTGCAGT ATCAGGTGGT GGACGCAAAC CATGGCGTCA AAAAGGAACT	840
GGACGTGCTC GTCAAGGTTT TATCCGCTCA CCACAATGGC GTGGTGGTGG TGTGTCTTC	900
GGACCAACTC CACGTTTATA CGGCTACAAA CTTCACAAA AAGTTCGTCG CCTAGCTCTT	960
AAATCAGTTT ACTCTGAAAA AGTTGCTGAA AACAAATTCG TAGCTGTAGA CGCTCTTTCA	1020
TTTACAGCTC CAAAACTGC TGAATTTGCA AAAGTTCTTG CAGCATTGAG CATCGATTCT	1080
AAAGTTCTTG TTATCCTTGA AGAAGGAAAT GAATTCGCAG CTCTTTCAGC TCGTAACCTT	1140
CCAAACGTGA AAGTTGCAAC TGCTACAAC	1200
GCAAGTGTTT TTGACATCGC AAATAGCGAC	1260
AACTTCTTG TCACACAAGC AGCTATCTCT AAAATCGAGG AGGTTCTTGC ATAATGAATT	1320
TGTATGATGT TATCAAAAAA CCTGTCATCA CTGAAAGCTC AATGGCTCAA CTTGAAGCAG	1380
GAAAATATGT ATTTGAAGTT GACACTCGTG CACACAACT TTTGATCAAG CAAGCTGTTG	1440
AAGCTGCTTT CGAAGGTGTT AAAGTTGCCA ATGTTAACAC AATCAACGTA AAACCAAAAG	

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CTAAACGTGT	TGGACGTAC	ACTGGTTT	CTAACAAAAC	TAAAAAAGCT	ATCATCACAC	1500
TTACAGCTGA	TTCTAAAGCA	ATCGAGTTGT	TTGCTGCTGA	AGCTGAATAA	TCTAAGGAGG	1560
AAATATCGTG	GGAATTCGTG	TTTATAAACC	AACAACAAAC	GGTCGCCGTA	ATATGACTTC	1620
TTTGGATTTC	GCTGAAATCA	CAACAAGCAC	TCCTGAAAAA	TCATTGCTTG	TTGCATTGAA	1680
GAGCAAGGCT	GGTCGTAACA	ACAACGGTCG	TATCACAGTT	CGTCACCAAG	GTGGTGGACA	1740
CAAACGTTTC	TACCGTTTGG	TTGACTTCAA	ACGTAATAAA	GACAACGTTG	AAGCAGTTGT	1800
TAAAACAATC	GAGTACGATC	CAAACCGTTC	TGCAAACATC	GCTCTTGCTAC	ACTACACTGA	1860
CGGTGTGAAA	GCATACATCA	TCGCTCCAAA	AGGTCTTGAA	GTAGGTCAAC	GTATCGTTTC	1920
AGGTCCAGAA	GCAGATATCA	AAGTCGGAAG	CGCTCTTCCA	CTTGCTAACA	TCCCAGTTGG	1980
TACTTTGATT	CACAACATCG	AGTTGAAACC	AGGTCGTGGT	GGTGAATTGG	TACGTGCTGC	2040
TGGTGCACTC	GCTCAAGTAT	TGGGTTCCTGA	AGGTAAATAT	GTTCTTGCTC	GTCTTCAATC	2100
AGGTGAAGTT	CGTATGATTC	TTGGAACCTG	CCGTGCTACA	GTTGGTGTTG	TCGGAAACGA	2160
ACAACATGGA	CTTGTAACC	TTGGTAAAGC	AGGACGTAGC	CGTTGGAAAG	GTATCCGCCC	2220
AACAGTTCGT	GTTCTGTAA	TGAACCCTAA	CGATCACCCA	CACGGTGGTG	GTGAAGGTAA	2280
AGCACCAAGT	GGTCGTAAAG	CACCATCTAC	TCCATGGGGC	AAACCTGCTC	TTGGTCTTAA	2340
AACTCGTAAC	AAGAAAGCGA	AATCTGACAA	ACTTATCGTT	CGTCGTCGCA	ACGAGAAATA	2400
ATATTAAACT	AGTCGCTTAA	GCAACTAGTA	AATCCGCCAG	CTCGGTAGCG	CTCCATAGGA	2460
GTGCAAGCCG	CTGTGGTACA	ACATTTAAAG	GAGAAAATAT	AAAAATGGGA	CGCAGTCTTA	2520
AAAAAGGACC	TTTCGTCGAT	GAGCATTTGA	TGAAAAAAGT	TGAAGCTCAA	GCTAACGACG	2580
AAAAGAAAAA	AGTTATTAAA	ACTTGGTCAC	GTCGTTCAAC	GATCTTCCCA	AGTTTCATTG	2640
GTTACACTAT	TGCAGTTTAT	GACGGACGTA	AACACGTACC	TGTTTACATC	CAAGAAGACA	2700
TGGTAGGCCA	CAAACCTGGT	GAATTTGCAC	CAACTCGTAC	TTACAAAGGT	CACGCTGCAG	2760
ACGACAAGAA	AACACGTAGA	AAATAAGGAG	AACATAAATG	GCAGAAATTA	CTTCAGCTAA	2820
AGCAATGGCT	CGTACAGTAC	GTGTTTCACC	TCGTAAATCA	CGTCTTGCTC	TTGATAACAT	2880
CCGTGGTAAA	AGCGTAGCCG	ATGCAATCGC	AATCTTGACA	TTCACCTCAA	ACAAAGCTGC	2940
TGAAATCATC	TTGAAAGTTT	TGAACTCAGC	TGTAGCTAAC	GCTGAAAACA	ACTTTGGTTT	3000
GGATAAAGCT	AACTTGCTAG	TATCTGAAGC	ATTCGCAAAC	GAAGGACCAA	CTATGAAACG	3060
TTTCCGTCCA	CGTGCGAAAG	GTTTCAGCTC	ACCAATCAAC	AAACGTACAG	CTCACATCAC	3120
TGTAGCTGTT	GCAGAAAAAT	AAGGAGGTAA	AATCGTGGGT	CAAAAAGTAC	ATCCAATTGG	3180
TATGCGTGTC	GGCATCATCC	GTGATTGGGA	TGCCAAATGG	TATGCTGAAA	AAGAATACGC	3240

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GGATTACCTT CATGAAGATC TTGCAATCCG TAAATTCGTT CAAAAAGAAC TTGCTGACGC	3300
AGCAGTTTCA ACTATTGAAA TCGAACGCGC AGTAAACAAA GTTAACGTTT CACTTCACAC	3360
TGCTAAACCA GGTATGGTTA TCGGTAAAGG TGGTGCTAAC GTTGATGCac TCCGTGCAAA	3420
ACTTAACAAA TTGACTGGAA AACAAGTACA CATCAACATC ATCGAAATCA AACACCTGA	3480
TTTGGATGCT CACCTTGTAG GTGAAGGAAT TGCTCGTCAA TTGGAGCAAC GTGTTGCTTT	3540
CCGTCGTGCA CAAAAACAAG CAATCCAACG TGCAATGCGT GCTGGAGCTA AAGGAATCAA	3600
AACTCAAGTA TCAGGTCGTT TGAACGGTGC AGATATCGCC CGTGCTGAAG GATACTCTGA	3660
AGGAACTGTT CCGCTCACA CACTTCGTGC AGATATCGAT TACGCTTGGG AAGAAGCAGA	3720
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TCGTGAGTTC CGTGGAAAAA TGCGCGGTGA AGCAAAAGGT GGAAAAGAAG TAGCATTCGG	3900
TGAATACGGT CTTCAAGCTA CAACTAGCCA CTGGATCACT AACCGCCAAA TCGAAGCTGC	3960
TCGTATCGCC ATGACTCGTT ACATGAAACG TGGTGGTAAA GTTTGGATTA AAATCTTCCC	4020
ACACAAATCA TAACTGCTA AAGCTATCGG TGTGCGTATG GGATCTGGTA AAGGGGCACC	4080
TGAAGGTTGG GTAGCACCAG TTAAACGTGG TAAAGTGATG TTCGAAATCG CTGGTGTATC	4140
TGAAGAGATT GCACGTGAAG CGCTTCGACT TGCTAGCCAC AAATTGCCAG TTAAATGTAA	4200
ATTCGTAAAA CGTGAAGCAG AATAAGGAGA AGGCATGAAA CTTAATGAAG TAAAAGAATT	4260
TGTTAAAGAA CTTCTGGTTC TTTCTCAAGA AGAACTCGCG AAGCGCGAAA ACGAATTGAA	4320
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TGTTGTATCT GACAAAATGG ACAAGACAAT CACAGTTGTA GTTGAAACAA AACGTAACCA	4560
CCCAGTCTAT GGTAAACGTA TTAATACTC TAAAAAATAC AAAGCTCATG ATGAAAACAA	4620
TGTTGCCAAA GAAGGCGATA TCGTACGTAT CATGGAAACT CGCCCGCTTT CAGCTACAAA	4680
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AGAAAACCTGA AATGATTCAA ACAGAACTC GTTTGAAAGT CGCAGACAAC AGCGGTGCTC	4800
GCGAAATCTT GACTATCAAA GTTCTTGGTG GTTCAGGACG TAAATTTGCA AACATCGGTG	4860
ATGTTATCGT GGCATCTGTA AAACAAGCTA CTCCTGGTGG TGCGGTTAAA AAAGGTGACG	4920
TTGTTAAAGC AGTTATCGTT CGTACTAAAT CAGGTGCTCG TCGTGCTGAT GGTTCATACA	4980

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TCAAATTTGA	CGAAAACGCA	GCAGTTATCA	TCCGTGAAGA	CAAACTCCT	CGCGGAACAC	5040
GTATCTTTGG	CCCAGTTGCA	CGTGAATTGC	GTGAAGGTGG	CTTCATGAAG	ATCGTGTCAC	5100
TTGCTCCAGA	AGTACTTTAA	TTTTTAGGAA	CAAAGTAGTC	CCCTAGCTTC	AAGCTAGGGT	5160
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AGTTCGCGTA	ATCGCTGGTA	AAGATAAGGG	AACAGAAGCT	GTTGTCCTTA	CTGCCCTTCC	5280
AAAAGTAAAC	AAAGTTATCG	TTGAAGGTGT	TAACATTGTT	AAGAAACACC	AACGTCCAAC	5340
TAACGAGCTT	CCTCAAGGTG	GTATCATCGA	GAAAGAAGCA	GCTATCCACG	TATCAAACGT	5400
TCAAGTTTTG	GACAAAAATG	GTGTAGCTGG	TCGTGTTGGA	TACAAATTTG	TAGACGGTAA	5460
AAAAGTTCGC	TACAACAAAA	AATCAGGCGA	AGTGCTTGAT	TAATCACGAA	GGAAAGGAGA	5520
AGTATAATGG	CAAATCGTTT	AAAAGAAAAA	TATCTTAATG	AAGTAGTTCC	TGCTTTGACA	5580
GAACAATTCA	ACTACTCATC	AGTGATGGCT	GTGCCTAAAG	TAGATAAGAT	TGTTTTGAAC	5640
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GCACTTATCT	CAGGTCAAAA	ACCACTTATC	ACTAAAGCTA	AAAAATCAAT	CGCCGGCTTC	5760
CGTCTTCGTG	AAGGTGTTGC	GATCGGTGCA	AAAGTTACCC	TTCGTGGTGA	ACGTATGTAC	5820
GAATCTTTGG	ATAAATTGGT	ATCAGTTTCA	CTTCCACGTG	TACGTGACTT	CCACGGTGTC	5880
CCAACAAAAT	CATTTGATGG	ACGCGGGAAC	TACACACTTG	GTGTGAAAGA	ACAATTAATC	5940
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GCAAAATAAT	ATAGGAGGTA	AATCTAATGG	CTAAAAAATC	AATGGTAGCT	AGAGAGGCTA	6120
AACGCCAAAA	AATTGTTGAC	CGTTATGCTG	AAAAACGTGC	TGCATTAAAG	GCGGCAGGGG	6180
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AGATATCAAG	AGCGTCAAAA	CTCCAAGTAA	AAATAGGAAA	CTTGACGAAG	AACTAAAAGT	6420
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TTTGAACACG	AGCTACAGCT	TTGGCAAAAA	AGACCAATTT	GCTTTGGAGC	ATTGCTTCTG	6540
CATTAAATTG	TCTATTTTGG	CTCGTGCTGT	TACGCTCTTT	GTATCATGTA	TTAACTAGCA	6600
AGTGCAACTT	GCAAACTACT	AGTAAGAGGA	GAAAAACAAA	ATGGTTATGA	CTGACCCAAT	6660
CGCAGACTTC	CTAACTCGTA	TTCGTAATGC	TAACCAAGCT	AAACACGAAG	TACTTGAACT	6720
ACCTGCATCA	AACATCAAAA	AAGGGATTGC	TGAAATCCTT	AAACGCGAAG	GTTTTGTAAA	6780



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AAACGTTGAA ATCATTGAAG ATGACAAACA AGGCGTCATC CGTGTATTTC TTAAATACGG	6840
ACCAAATGGT GAGAAAGTTA TCACTAACTT GAAACGTGTT TCTAAACCAG GACTTCGTGT	6900
CTACAAAAAA CGTGAAGACC TTCCAAAAGT TCTTAACGGA CTTGGAATTG CCATCCTTTC	6960
AACTTCTGAA GGTTCGCTTA CTGATAAAGA AGCACGCCAA AAGAATGTTG GTGGTGAGGT	7020
TATCGCTTAC GTTTGGTAAA ATCAAGATAC AAAGCTCGTA AAGAACAAAG CAAAATTAGG	7080
AAGTTGGAGA AGTTTGTTTA CAAACAAGCC AACTTATCTA TTTTGCACAG TTCTTAGAGC	7140
GTGTTCAAGT CAGCTCTTGA ACTAAATAAG TATCTGAACC CCGTGAAAAC TGGCCGTTC	7200
GGCTGACAA TTTAACAGGA GAAAATAAAC ATGTCACGTA TTGGTAATAA AGTTATCGTG	7260
TTGCCTGCTG GTGTTGAACT CGCTAACAAAT GACAACGTTG TAACTGTAAA AGGATCTAAA	7320
GGAGAACTTA CTCGTGAGTT CTCAAAGAT ATTGAAATCC GTGTGGAAGG TACTGAAATA	7380
ACTCTTCACC GTCCAAACGA TTCAAAGAA ATGAAAATA TCCACGGAAC TACTCGTGCC	7440
CTTTTGAACA ACATGGTTGT TGGTGTATCA GAAGGATTCA AGAAAGAACT TGAAATGCGT	7500
GGGGTGGTT ACCGTGCACA GCTTCAAGGA TCTAAACTTG TTTTGGCTGT TGGTAAATCT	7560
CATCCAGACG AAGTTGAAGC TCCAGAAGGA ATTACTTTTG AACTTCCAAA CCCAACAACA	7620
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CTTCGTTTAC CAGAACCATA TAAAGGTAAA GGTATCCGTT ACGTTGGTGA ATTCGTTTCG	7740
CGTAAAGAAG GTAAAACAGG TAAATAATGT TGAGTGGTTG ATCATCAACC ACCAACCTAT	7800
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AACCAGATAA AACAAACTC CGCCAAAAAC GCCACCGTCG CGTTCGCGGA AACTCTCTG	7920
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TGATTGATGA CGTAGCGGT GTAACGCTCG CAAGTGCTTC AACTCTTGAT AAAGAAGTTT	8040
CAAAGGAAC TAAAACTGAA CAAGCCGTTG CTGTCGGTAA ACTCGTTGCA GAACGTGCPA	8100
ACGCTAAAGG TATTTAGAA GTGGTGTTTC ACCGCGGTGG ATATCTATAT CACGACGTC	8160
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GAAAATGGCA TTTAAAGACA ATGCAGTTGA ATTAGAAGAA CGCGTAGTTG CTGTCAACCG	8280
TGTTACAAAA GTTGTTAAAG GTGGACGTCG TCTTCGTTTC GCAGCTCTTG TTGTTGTTGG	8340
TGACCACAAT GTCGCGTAG GATTTGGTAC TGGTAAAGCT CAAGAAGTTC CAGAAGCAAT	8400
CCGTAAAGCA GTAGATGATG CTAAGAAAAA CTTGATCGAA GTTCCTATGG TTGGAACAAC	8460
AATCCACAC GAAGTTCTTT CAGAATTCGG TGGAGCTAAA GTATTGTTGA AACCTGCTGT	8520

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AGAAGGTTCT	GGAGTTGCCG	CTGGTGGTGC	AGTTCGTGCC	GTTGTGGAAT	TGGCAGGTGT	8580
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TGTTGAAGGT	TTGAAACAAT	TGAAACGCGC	TGAAGAAATT	GCTGCCCTTC	GTGGTATTTT	8700
AGTTTCTGAT	TTGGCATAAG	AAAGGGGATA	AAATGGCTCA	AATTAAAATT	ACTTTGACTA	8760
AGTCTCCAAT	CGGACGCATT	CCATCACAAC	GTAAACTGT	TGTAGCACTT	GGAAGTGGCA	8820
AATTGAACAG	CTCTGTTATT	AAAGAAGATA	ACGCTGCTAT	CCGTGGTATG	ATCACAGCAG	8880
TATCTCACTT	AGTAACAGTT	GAAGAAGTAA	ACTAATGAaG	TTTTAGGGGA	TGTGCACTGT	8940
ACCATCCCCT	AAAAGTAGAT	ATAGTCATCT	ATGATGACAT	CGTATAGGCG	AGTTGATGGG	9000
GGAGACAACC	TTTTCTCCCT	TATCGGCGCT	AGCATTTTAC	AAAAGAGGAG	AAAATAAAAA	9060
TGAAACTTCA	TGAATTGAAA	CCTGCAGAAG	GTTCTCGTAA	AGTACGTAAC	CGCGTTGGTC	9120
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GTTCAGTAGA	AGTCATCTAA	GAGAGGTGAC	CTATGTTTTT	TAAATTATTA	AGAGAAGCTC	9540
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GTATCGGAAC	TAGCATTACA	GTTCTTGGTG	TGAATGCCAA	TAGCTTGAAT	GCTTTAAGTG	9660
GATTATCCTT	CTTAAACATG	TTGAGCTTGG	TGTCGGGGAA	TGCCCTAAAA	AACTTTTCGA	9720
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CAGCTGGTTT	TAATACCTTG	GCTGGAGCTC	AATTGATTAA	AACTGCTTTA	ACTCCACAAG	9960
TTTTTCTGAC	GATTGGTATC	ATCTTAACAG	CTGGTAGTAT	GATTGTCACT	TGGTTGGGTG	10020
AGCAAATTAC	AGATAAGGGA	TACGGAAACG	GTGTTTCCAT	GATTATCTTT	GCCGGGATTG	10080
TTTCCTCAAT	TCCAGAGATG	ATTCAGGGCA	TCTATGTGGA	CTACTTTGTG	AACGTCCCAA	10140
GTAGCCGTAT	CACTTCATCT	ATCATTTTCG	TAATCATTTT	GATTATTACT	GTATTGTTGA	10200
TTATTTACTT	TACAACCTTAT	GTTCAACAAG	CAGAATACAA	AATTCCAATC	CAATATACTA	10260
AGGTTGCACA	AGGTGCTCCA	TCTAGCTCTT	ACCTTCCGTT	AAAAGTAAAC	CCTGCTGGAG	10320

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TTATCCCTGT TATCTTTGCC AGTTCGATTA CTGCAGCCTG CGGCTATTCT TCAGTTTTTG	10380
AGTGCCACAG GTCATGATTG GGCTTGGGTA AGGGTAGCAC AAGAGATGTT GGCAACTACT	10440
TCTCCAAC TG GTATTGCCAT GTATGCTTTG TTGATTATTC TCTTTACATT CTTCTATACG	10500
TTTGTA CAGA TTAATCCTGA AAAAGCAGCA GAGAkCCTAC AAAAGAGTGG TGCCTATATC	10560
CATGGAGTTC GTCCTGGTAA AGGTACAGAA GAATATATGT CTAAACTTCT TCGTCGCTCT	10620
GCAACTGTTG GTTCCCTCTT CCTTGGTGTG ATTTCCATTT TACCGATTGC AGCTAAAGAT	10680
GTATTTGGTC TTTCTGATGT TGTTCCTTTT GGTGGAACAA GTCTCTTGAT CATATCTCT	10740
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TTCCATGTTG CACATATCTC AACAGGTGAT ATGTTCCGCG CTGCAATGGC AAATCAAAC	11100
GAAATGGGTG TTCTTGCTAA GTCATATATT GACAAGGGTG AATTGGTTCC TGACGAAGTT	11160
ACAAATGGAA TCGTAAAAGA ACGCCTTTCA CAAGATGATA TTAAAGAAAC AGGATTCTTA	11220
TTGGATGGTT ACCCACGTAC AATTGAACAA GTCATGCCT TGGACAAAAC ATTGGCTGAA	11280
CTTGGCATTG AACTAGAAGG TGTATCAAT ATTGAAGTGA ACCCTGACAG CCTTTTGGAA	11340
CGTTTGAGTG GGGCTATCAT CCACCGCGTA ACTGGAGAAA CTTTCCACAA GGTCTTTAAC	11400
CCACCAGTTG ACTATAAAGA AGAAGATTAC TACCAACGTG AAGATGATAA GCCTGAGACA	11460
GTAAAACGTC GTTTGGATGT TAATATTGCT CAAGGAGAAC CAATCATTCG TCACTACCGT	11520
GCCAAAGGTT TGGTTCATGA CATCGAAGGT AATCAAGATA TCAATGATGT CTTCTCAGAT	11580
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CAAATGTTAT ACTGAGATAG TCTGACTTAT AATTGTTGTC TCTGTGTCTA GAGGCATCGA	11700
ATCGAAATTT ATGGAGGTGC TTTTGCCTGG CAAAAGACGA TGTGATTGAA GTTGAAGGCA	11760
AAGTAGTTGA TACAATGCCG AATGCAATGT TTACGGTTGA ACTTGAAAAT GGACATCAGA	11820
TTTTAGCAGG G	11831

(2) INFORMATION FOR SEQ ID NO: 66:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 10726 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

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(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 66:

CCCGGCATTT GAAAGCTATT CGTGAAGGAT TTATGATGGC AATGCCTTTG ATTTTAGTCG	60
GCTCTTTATT TCTTATTCTA ATCAGTTGGC CTCAAGAGGC TTTTACAAAT TGGCTGAATA	120
GTGTTGGATT GCTAAGTATC TTGACAACTA TGAATCAGTC AACAGTAGCG ATTATCTCCT	180
TGGTCGCTTG TTTCCGTATT GCCTACAGGT TGTCGGAAGG ATATGGTACA GATGGTCCGT	240
CGGCAGGGAT CATAGCCTTA TCCAGTTTGG TATTGATGGC ACCTCGTTTT TCGAGTATGG	300
TTTATGATAA AAATGGGGAG CAGGTCAAGC AGTTATTTGG CGGCGCAATA CCATTTTCTA	360
GCCTGAATGC ATCTTCTTTG TTTATGGCGA TTACTATTGG ATTGTTTACA GCAGAGATTT	420
ATCGTATGTT TATCCAGCGC GGAATTACGA TAAAAATGCC AAGTGGTGTC CCAGATGTAG	480
TAAGTAAATC ATTTTCAGCT CTTTTATCTG GTTTTACTAC TTTTGTTTTG TGGGCTTTGG	540
TCTTAAAAGG TCTTGAAGCG GCAGGAGTTG CAGGAGGTCT CAACGGACTC CTAGGTGCAA	600
TTGTTGGAAC ACCGCTTAAG TTAATTGCAG GAACGCTTCC AGGTATGATT CTATGTGTTA	660
TTGTAAACTC ATTCTTTTGG TTCTGTGGAG TTAATGGGGG ACAAGTTTAA AATGCTTTTG	720
TAGACCCAGT TTGGTTACAA TTTACTACAG AAAACCAAGA AGCTGTGGCT GCAGGACAAA	780
CACTCCAACA CATTATTACA TTACCGTTTA AAGATTTATT TGTATTTATT GGTGGCGGTG	840
GAGCGACTAT TGGTCTTGCG ATTTGTCTCT TCCTATTTAG TAAGAGTCGT GCGAATAAAA	900
CATTAGGTAA GCTAGCTATT ATACCGTCTA TTTTAAATAT CAATACAGCT ATTCTATTTA	960
CGTTTCCAAC AGTTTTTAAAT CCGATTATGC TGATTCCGTT TATTGCTACT CCTACAATCA	1020
ATGCCTTGAT TACCTATGTA TCAATGGCTG TAGGATTAGT ACCCTATACA ACAGGTGTAA	1080
TCCTTCCGTG GACAATGCCA CCGATTATAG GAGGCTTCCT TGCAACAGGG GCTAGTTGGC	1140
GAGGAGCTCT ATTACAAGTT GTTTTGATTT TGGTTTCTGT AGCAATTTAT TATCCATTCT	1200
TCAAAATTGC AGATAAACGC AATCTTGAAA AAGAAAAAGC TACTGTTGGA GGGAAATAAG	1260
ATGGTTATCA GAGTATTTGA TCAACAGAAA AATACTTATT CTAGCTTTGC CTTAGAGGAA	1320
TTAAGTTACT ATATGAATCG GGTCTTTAAG ACTAACATAG AGCTTGTCGA GGAGAAGGAA	1380
GCGGATATTT TTGTAGGATT AGTCAATAAA GAGGACAGAA AAGACCATGT TCTTATCTCA	1440
TTAGACAAGG GTAAGGGGAG AATTGAGTCT AATACAATTG TAGGTTTACT TATTGGAATT	1500
TACCGAATGT TTCATGAATT TGGGGTTGTG TATACTAGAC CAGGGCGCAG ACATGACTTT	1560
GTTCCAGAGT TACGATTTGA AGATTTTTTA GATAAACAGC TATCTATAGA TGAAACAGCC	1620

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AGTTACTATC ATAGGGGAGT ATGTATAGAG GGAGCGGATT CATTTGAAAA TATACTAGAT	1680
TTTCATTGATT GGCTACCTAA GATTGGGATG AACAGTTTTT TCATCCAGTT TGAAAATCCT	1740
TACTCTTTTT TGAAACGTG GTATGAACAT GAATTTAATC CATATCTAAA TAAAGAACAA	1800
TTTTCAAATG AATTAGTACA AGAATTGAGT GATAGGTTGG ATAAAGAATT GCAAAAAAGA	1860
GGTCTTATTC ATCATCGTGT TGGTCATGGA TGGACAGGTG AAGTTTTAGG TTACTCTTCA	1920
AAATTTGGCT GGAATCAGG TCTTAGTATT TCAGAGGAGA AGAAACCCTA TGTCGCTGAA	1980
ATAAACGGGA AACGAGAATT GTTTAATACG GCTCCGATTT TAACCAGCCT GGATTTTTCA	2040
AATCCAGATG TAGCTGATAA GATGGTAGAA ATTATCAAGG ATTATGCCAA GAAAAGACCT	2100
GATGTAACT ACTTACATGT ATGGTTGTCG GATGCTCGTA ATAATATTG TGAATGCGAA	2160
AACTGTAGAC AAGAATTGGT TTCGGATCAG TATATTCGTA TTCTCAATCA ATTGGATAGG	2220
GCTTTAACGA GTGAGGGATT AGATACAAAG ATTTGTTTTC TGCTTTATCA TGAGTTGTTA	2280
TGGGCACCTC AGAAAGAAAA ATTAGATAAT CCTGAACGCT TTACCATGAT GTTGCACCG	2340
ATTACAAGAA CATTTGAAAT GAGTTATGCA GATGTAGATT TTGACAATTC CATACCTACG	2400
CCTAAACCTT ATATGCGTAA TAAAATTATA CTCCGAATT CTCTTGAGGA AAATTTATCT	2460
TATCTTTTGT AGTGGCAAAA AGCATTTAAA GGAGATAGTT TCGTATATGA CTATCCTTTA	2520
GGGCGTGCTC ATTATGGCGA TTTAGGCTAT ATGAAAATTA GTCAAACTAT TTACAGAGAT	2580
GTATCTTATC TTTCCAACCT ACATTTGAAC GGGTACATTT CGTGTCAAGA ATTACGTGCC	2640
GGATTCCTC ATAATTTTCC TAATTATGTC ATGGGGGAAA TGCTCTGGAA GAAGACAAGA	2700
AGTTATGAAG AATTGATTGA AGAATACTTT TCTGCTTTGT ATGGGGAAAA TTGGCAGTCT	2760
GTTGTTGAAT ATTTAGAAAA ATTATCCATT TATTCCTCTT GTGATTATTT TAATGCAATT	2820
GGCAGCCGTC AAAGTGATGT TTTAGCGAAT CATTATTATA TAGCTTACAA TCTAGCTGAT	2880
AATTTTTTAC CAATTATTGA GGAAAATATT TCTAAGTTAT TAAATAGTCA AAAGGATGAA	2940
TGGAAACAGC TCAGTTATCA TCGTGAATAT GTTGTAAAGA TGGCGAAGGC TTTATATCTT	3000
CAAGCAACTG GAAAAACAAG GCAAGCTCAA GATGAATGGA GAAATGTGTT GAATTATATC	3060
CGTGGGCACG AATTGCTATT TCAATCTAAT TTGGATGTTT ATCGTGTAAT TGAAGTAGCA	3120
AAAAATTACG CTGGTTTCCA CTTATAAATC ATAAGTATAG AAAATGAACT AAGGTATTCA	3180
GAGAAGATTG ATCCTAAATA TTATGAAATT TAAGGATTTT TAAGATATTT AGGGTCAACT	3240
TTCTATTAT ATCGTAGCGA AGTCATTTA ATAATGATGT GTAAAAGATG GATCAAGATT	3300
GAGGAGGAAG AAAGATGAAA TCAAAAGAAG AAATAAATAT GCTTGTTT ACAATTGTCG	3360

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ATTTTGAACA	GGCAAGAGAA	TTGGTTGAGT	CTGCAAACGA	CTCAATAGTG	TCTGCCCCATC
GAGAACAGAC	TAATTTATTA	GCGGAGGAGG	CATATGGAGA	TAATTTTGAA	GTGAGCTTTA
TTATGATTCA	TGGTCAAGAT	ACTTTGATGA	CAACGATGCT	ATTGTATGAT	CAGGTAAAGT
TTTTTATGTA	TGAATATGAA	CGAATTCGAA	AGATTGAAGA	ACATATTGGT	TTGCAATGAG
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CTACCGCTGC	TTATCAAGTA	GAGGGTGCAA	CTAGGGTAGA	TGGCAAAGGA	ATAAATATGT
GGGATGTTTA	TTTGCAAGAA	AATAGTCCGT	TCTTACCAGA	TCCAGCTAGT	GATTTTTATT
ATCGTTACGA	AGAGGATATA	GCTTTGGCGG	CAGAACATGG	TTTGCAGGCT	TTGCGTTTAT
CTATTTCTTG	GGTTCGTATA	TTTCCTGATA	TAGATGGGGA	TGCTAATGTA	TTAGCTGTTC
ATTATTACCA	TAGAGTTTTT	CAGTCTTGCT	TAAAACATAA	TGTGATTCCG	TTGTTTTCTT
TACATCATTT	TGATTCGCCT	CAGAAAATGT	TAGAAACAGG	GGATTGGTTG	AACAGAGAGA
ATATTGATCG	TTTCATACGA	TATGCTCGCT	TTTGTTTCCA	AGAATTTACA	GAAGTCAAGC
ATTGGTTTAC	AATCAATGAA	CTGATGTCTC	TTGCTGCAGG	TCAATATATA	GGAGGTCAGT
TTCCTCCAAA	TCATCATTTT	CAATTATCTG	AAGCAATTCA	AGCGAATCAT	AATATGTTGT
TGGCGCATGC	TCTTGCAAGT	CTCGAATTTT	ATCAATTAGG	GATTGAGGGA	AAGGTAGGTT
GTATTCATGC	TTTAAAGCCA	GGCTATCCTA	TTGATGGGCA	AAAAGAAAAT	ATTTTGGCAG
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TTATTGAAGA	TGGTGATTTA	GAAATTATGA	AGAGAGCTGC	ACCTCTTAAT	ACGATGTTTG
GGATGAATTA	TTATCGTTCA	GAATTTATTC	GTGAATACAA	AGGTGAAAAT	AGACAAGAAT
TTAATTCAAC	AGGAATAAAA	GGACAGTCTT	CTTTTAAATT	AAATGCTCTA	GGTGAATTTG
TAAAAAACC	TGGTATTCCT	ACAACAGATT	GGGATTGGAA	TATTTATCCT	CAAGGGTTAT
TTGATATGTT	GCTTCGTATC	AAAGAAGAAT	ATCCTCAACA	TCCGGTCATT	TATTTAACTG
AAAATGGTAC	AGCCCTTAAA	GAAGTTAAGC	CAGAGGGCGA	GAATGATATT	ATTGATGACA
GTAAGAGAAT	CCGTTATATT	GAGCAACATT	TACACAAAGT	TTTAGAGGCT	CGAGATAGAG
GAGTCAATAT	TCAAGGCTAT	TTTATATGGT	CTTTGCAAGA	TCAATTTTCT	TGGGCGAATG
GCTACAATAA	GCGATATGGT	CTTTTCTTTG	TTGATTATGA	AACACAGAAG	AGATATATTA
AGAAAAGTGC	TCTTTGGGTA	AAAGGGCTAA	AACGGAATTA	AGGTTAGCGA	TTTGA CTGAT
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AGTCGCTGCC	ATTGAAAAGC	AACAAGGGAA	ATTTGAAAAA	ATTTCTACTA	ATAACTATAT	5220
GATGGCTATT	AAAGATGGAT	TCATTGCTAC	TATGCCTTTA	ATTATGTTTT	CAAGCTTTTT	5280
GATGATTATT	ATTATGATTC	CTAAAAATTT	CGGAGTAGAG	TTACCGAGTC	CAGCTATTGT	5340
CTGGATGAGA	AAAGTGATA	TGTTAACCAT	GGGAGTTTTG	GGTATTATTG	TTTCAGGGAC	5400
TGTTGGAAAG	TCATTAGTTG	GAAATGTTAA	CAGAAAAATG	CCTCACGGAA	AGGTAATAAA	5460
TGATATTTCT	GCAATGTTGG	CAGCCATATG	TAGTTATCTG	GTATTAAC TG	TAACGCTTGT	5520
AGTTGATGAG	AAGACGGGAT	CTACAAGTTT	GTCGACAAAC	TATTTAGGAT	CTCAAGGATT	5580
GATAACTTCG	TTTGT CAGTG	CCTTTATTAC	TGTAAATGTT	TACCGATTCT	GTATTAAGCG	5640
AGACATTACT	ATTCATTTAC	CTAAGGAAGT	TCCTGGGGCT	ATATCACAAG	CTTTTAGAGA	5700
TATTTTCCCT	TTTTCTTTTG	TTTTACTTAT	TAGTGGTTTTG	TTAGATATTG	TATCTCGGTT	5760
TAGTTTAGAT	GTTCTTTTG	CCCAAGTATT	TCAACAAC TA	TTGACTCCTA	TTTTTAAGGG	5820
GGCAGAATCA	TATCCTGCTA	TGATGTTGAT	TTGGTTTTATG	TGTGCTTTGC	TTTGGTTTTGT	5880
TGGAATTCAT	GGACCATCTA	TTGTCTTACC	TGCTGTTACA	GCTTTGCAAC	TGAGCAATAT	5940
GGAAGAGAAT	GCTCAACTTC	TTGCAAATGG	GCAGTTC CCT	TATCATTCTT	TAACACCTAA	6000
TTTCGGGAAT	TATATCGCTG	CTATTGGAGG	AACGGGGGCT	ACCTTTGTTG	TACCATTTAT	6060
TTTGATTTTC	TTTATGCGGT	CTAAACAATT	AAAATCGGTA	GGTAAAGCTA	CAATTACTCC	6120
TGTTTTATTT	GCGGTAAATG	AACCTCTTCT	ATTTGGTATG	CCTGTTATTT	TGAATCCCTA	6180
TCTTTTTGTC	CCTTTTTTGA	TGACTCCACC	AGTGAATGTA	TTTCTAGGAA	AGGTCTTTAT	6240
TGATTTCTTT	GGAATGAATG	GATTTTATAT	CCAGTTACCT	TGGACCTTTC	CTGGTCCCTT	6300
GGGATTGTTA	ATTGGAACGA	ATTTTCAACT	TATCTCCTTT	GTATTTTTAT	CTTTGATTTT	6360
AGTTGTCGAC	ATATTGATTT	ATTTGCCATT	CTGTAGAGCG	TATGATAGAC	AGTTACTGGT	6420
GAAAGAAGAT	ATTGCAAGCT	CAAATGATAT	TATTTTAGAG	GAGGATACAA	GTGAAATAAT	6480
TCCTGGTGAG	ATAGATGAAA	TAAAAAGTAA	GGAGTTGAAA	GTACTGGTTC	TTTGTGCAGG	6540
GTCTGGAACA	AGTGC GCAAT	TAGCCAATGC	AATTAACGAG	GGGGCTAACT	TAACAGAGGT	6600
TAGAGTGATT	GCGAATTCAG	GAGCGTACCG	AGCTCATTAT	GATATTATGG	GTGTTTATGA	6660
TTTAATTATT	CTGGCCCCAC	AAGTTCGGAG	TTATTATAGA	GAGATGAAGG	TGGATGCAGA	6720
AAGATTAGGT	ATTCAGATAG	TTGCTACCAG	AGGAATGGAA	TATATTCATT	TAACAAAGAG	6780
TCCAAGTAAA	GCCTTACAAT	TTGTATTGGA	GCATTACCAA	GCTGTGTAGT	AAGTTTTTCC	6840
ATCTTTTATT	TGAGTAAAGA	TTTTGTTTAC	AGATAGGCTT	GGATTTAAAA	ACGTTCCCCC	6900

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TTTTTTAATA TAAGAATCCC TCTTTCACAA TTGTAAAAAG AGGGATTTTG TATTTTATCT	6960
CTTAGACCAA GTTCTCTTCA TAAAGAGAAG GAGGATTGGG TAAATCTCCA AGCGCCCTGC	7020
AATCATTGCA AAGGATAGGA GAATTTTGA GATGGGACTA AAGATTGAGA AACTAGAAGT	7080
GGTTCCTAGA ATAGGCCCGA TATTATTGAA ACAGCTAAAG ACAGCGCTGG TCACGACCAG	7140
AAAATCATTG CTATCTAGGC TGACAATAAA GATAAGCGCT AGCAAAATCA TAGCATAGAT	7200
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GAGGGTCAAA ACACGGTGGG GCGATAGGAT TGACAAAATT TGGTTTGTGG CAATTTTGA	7320
AAGGATGAGG CCTCGAATAA TCTTGAGTCC ACCTGCAGTT GATCCAGCAG AGCCACCGAT	7380
TGCCATGAGG AAAAGGAGGA TAACTGGGA GAAGAGGGGC CAGTTGGTAA TATCTCCATA	7440
TCCAAAACCA GTTGTGTAA TGATGTTGGA AACCTGGAAG AAGGTCATTT CAAAGCTCTT	7500
TGAAAACCCCT GGGTAGAGGT AGAGGGTGTT GAGGCTAATC AAGCCTGTAG AAACCAGTAC	7560
AATGACCAAG TAAGCCCTAA GCTCTTCATC TCCAAAGAAG GCCTTGATGC GACGGAGCAT	7620
GAGGTAGTAG TAGAGGTGA AATTTACTCC AAAAACCAGA ACTCCGATAC TGACCAGATA	7680
GGTAATCAGT GAGCTGCCAT AGTGGGCAAT TCCGTCGTTA TAGACGGTAA AGCCTCCAGT	7740
TCCCGCTGTC CCCATAGCAA TAACAAAACCT ATCGTAGAGA GGCATACCGG CTAGATAATA	7800
GATGATGACA AAGAGGGAGA AGAGAGCTAG ATAAAGGAGA TAGAGAATCT GGGCAGTGTT	7860
TTTTAGTTTG GATACAACCT TGCCAAAAAC AGGACCTGGA ACCTCAGCCT TCATCACCTC	7920
TAGGTGGCTA TTTTGGCAT TGTCCATAAT AGCAAGTGCA AAAACAAGCA CTCCCATCCC	7980
TCCAATCAAG TGGGTAAAAC TTCGCCAGAA GAGGAGGGAA CGGCTGAGAA CCGAAACGTC	8040
GTTCAAAATA CTTGCTCCAG TAGTTGTAAA TCCAGAACTA ATTTCAAAAA AGGCATCAAT	8100
AAGGCTGGGG ATTTGCCCAG AAAAGACAAA GGGGAGACCA CCAAAGAAAG ACCAAAGGAT	8160
CCAACAGAGG GCAACGATCA AGACTCCCTC CTTGGCATAA ATCCGTGTAT TTTTGGCTT	8220
CTGTAAACTC CCTGAACCGC CTAACAATAC GAGAATCCCT ATGGTCGAAA AGAGGGCTGT	8280
AAAGACTTGG CTCGATTAC GGTAATAGAC AGCAATCGCA ACAGGAACCA AAAGAAGAAC	8340
AGCTTCAATC AAAAGTAATT TTGAAAGGAG GTAACGAATC ATACTTTTAT TCATTTCTTA	8400
CCTCGCATC AAGTCATAAA TCTTGGTGAT GTTTGGCAAC AAGGTTGTTA CTAGGAGCTT	8460
GTCTCCAAC TCCAACATAT CCTCCCCAGT TGGGAAAATA GTCTTGCCCT TTCGAATAAT	8520
GGCTGCAATA AGAACCCCTT TTTTCAATTT CAGTTGAGAA AGAGGTTTGG CAGTCATTTT	8580
ATTGGCTTCC TTGATATGGA ATTGCAGGGT TTCGATTGG CCATTGGCTA GATGGTGCAT	8640
AGCTTGAAGG TCTGAATACT GGGCATTAAC TCGACCACGA ATAAAGTGCA TAATCGTATC	8700



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TACAGCGATG CTTTtaggtg TGATGATACT TGAAAAATCA GGCGCATTGA TAATCTCGAG	8760
GAGACTGGTA CGATTGACCT TAGTAATATT TTTCTGTACA CCTACCCTGT CAAGGAACAT	8820
AGATGTAATC AGATTTTCCT CATCGACTCC TGTTAGAGTC GCAACGGCAT CATAGTGTG	8880
AGCACTTTCT TCCAGCAGGA TATCTTTTGC GGTTCATCT CCTTGAACGA TGTAGAGATT	8940
TGGGAATTTC TCGCTAAAGA AGCTGGCGAT TTCAGGATTG ATTTCAATGA CTTTGTATC	9000
GATACGACTA TCTTTGAGAA TACCAAGTAG ATAATAGGCA ATTCTACCTG CCCCAACGAT	9060
GAGAAGGCTC TTCACGGCGC GTGATTAAA ATAATTATGG AAGAGTATCA TATCGACACG	9120
GTTACCAGTG ACAAAGATTC TATCTTTATC CTGTACAGTC ATGTCACCGC TTGGAATGAT	9180
AATTTGATGA TCCCTCTCTA TCGCACAGAC AATGACATTA CCAAATTTT TACGAAAATC	9240
AGAAATGGC ATTTGGCAA GACCGCTGGT GGACTTGACG ACAAATTCCA TGAGGCTAAC	9300
GCGTCCACCA GCAAAGCGTT CGACAGACAG GCGTTGGGG AAGTCAATGA TATTCGCGAT	9360
AGCGCGGGCA GCCAAGAGCT CAGGATTAAC GATAAGAGAA AAACCGAGAA TATTCTTTTC	9420
CTTGAAATAA GAGTTAGAAT ATTCAGGTT CCGCACCCGA ACGATAGTTT CTTTAGCTCC	9480
CATTTCTTG GCTAGAACTG CTGCAATCAT GTTGACTTCA TCGTGCTCAG TCAGGGCGAT	9540
AAAGATATCA CAATCTTGA CGCTGGCTTG CTCAAGAATG GCAAATCGG CCCCGTTACC	9600
AAGGATACCA ATGATATCAA AGCGACTGAC AATATGATTG AGAACAGCTT CGTCTGCTC	9660
AATCAGCAAA ACATCATGCT TTTCTGCAAC CAAGGAGCGA CAGAGGGCAA AACCAACTTT	9720
TCCCCCTCCG ACAAGGATAA TTTTCATAAT AAAACCTACT TTTTCATGAT GTAACATCA	9780
TACCC'TTTT CAAGAAAAA TGCACCTACT AGCTAATAAC AAGAGTTTTT AGTGAAAATT	9840
CGCTATAAGG TAAAACTATA CCCTAACCA TTGAAATAGC TATTAGCGAC TTTCTCTGAA	9900
ATATGGTATG ATAAAGGATA TACAAGGAGA TAAATGAAT AATAATTAC TGGTATTACA	9960
ATCAGACTTT GGTCTGGTTG ATGGTGCGGT ATCGGCTATG ATTGGAGTGG CTTTAGAAGA	10020
GTCTCCAACC TAAAAATAC ATCACTTGAC GCACGATATC ACGCCTTATA ATATTTTGA	10080
GGGGAGCTAT CGTCTCTTTC AGACGGTGGA TTA'CTGGCCT GAGGGAACGA CGTTTGTATC	10140
GGTTGTGCGAT CCAGGTGTCG GTTCGAAACG TAAGAGTGTA GTTGCCAAGA CTGCAAAAAA	10200
TCAATACATT GTCACGCCAG ATAATGGGAC GCTTTCCTTT ATCAAGAAAC ACGTTGGCAT	10260
TGTAGCCATT CGTGAGATT CTGAGGTGGC CAATAGGCGT CAAAACACAG AGCATTCTTA	10320
TACCTTCCAC GGTCGTGATG TCTATGCCTA TACTGGTGCT AA'ACTGGCCA GTGGTCACAT	10380
TACTTTTGAG GAAGTAGGGC CAGAGCTCAG TGTGGAACAG ATGTAGAGC TTCCAGTCGT	10440

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AGCGACCATC ATAGAAGATC ATCTGGTGAA GGGAGCCATT GATATTCTGG ATGTGCGTTT	10500
CGGTTTCGCTT TGGACCTCTA TCACACGGGA AGAATTTTAC AAGCTGGAAC CAGAATTTGG	10560
TGATCGTTTT GAAGTGACCA TCTATCATGC TGATATGCTG GTCTATCAAA ATCAGGTTGT	10620
CTATGGCAAA TCATTTGCAG ATGTGAGAAT TGGGCAACCs ATcTTTACrc TCAGCaTCTt	10680
CGATTAGCTG GGCAATTCGT TCTAGTTGGA TTTCGTCAAT CAAGGT	10726

(2) INFORMATION FOR SEQ ID NO: 67:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7163 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 67:

TTATCTTTAA CGATATCAAT CAAGATCTGG TCAATAAAGG GATTGGGGCT TATCGTGAAG	60
TTGGCATCCA AGCCCATGGA TATGTCTGTG ACGTGACAGA CGAGGACGGT ATCCAAGCCA	120
TGGTCAAGCA AATCGAACAA GAGGTTGGTG TCATTGACAT CCTCGTTAAT AACGCTGGTA	180
TTATCCGCCG AGTTCCAATG TGCGAAATGA GCGCCGCTGA TTTCCGTAAG GTCATCGATA	240
TTGACTTAAA CGCACCATT TATCGTTTCAA AGGCAGTTAT TCCTTCTATG ATAAAGAAAG	300
GGCATGGAAA GATTATCAAT ATTTGTTCGA TGATGAGCGA ACTGGGACGT GAAACAGTTA	360
GCGCTTATGC TGCTGCTAAA GGGGGCTTGA AAATGTTGAC CCGCAACATT GCGTCTGAAT	420
ACGGTGGAGC CAATATCCAA TGTAACGGAA TTGGACCGGG TTATATTGCC ACTCCTCAAA	480
CAGCACCTCT TCGTGAATTG CAAGAAGATG GTTCTCGCCA CCCATTGAC CAGTTCATCA	540
TTGCAAAAAC ACCTGCTGCA CGTTGGGGAA TACTGAAGA TTTGATGGGC CCTGCTGTCT	600
TTCTCGCTAG TGATGCCAGC AATTTTGTCA ATGGCCACAT CCTATATGTA GATGGCGGTA	660
TCTTAGCCTA CATCGGAAAA CAACCTGAGT AAAAATAGAA AGAAGATCTT ATGAAAATCG	720
CATTAATCAA TGAAAATAGT CAAGCTAGCA AGAATCACAT TATTTACGAT AGTCTAAAAG	780
AAGCGACAGA TAAAAAAGGC TACCAATTAT TTAACATATG TATGCGTGGA GAAGAAGGAG	840
AAAGTCAATT AACTTATGTG CAGAACGGAC TAATGGCTGC CATCCTTTTA AATACAAAGG	900
CAGTTGACTT TGTGTGTTACC GGCTGTGGTA CGGGTGTAGG GGCTATGCTT GCTTTAAACA	960
GCTTCCCTGG TGTGTCTGT GGTCTAGCAG TGGACCCAAC TGACGCTTAC CTTTATTCTC	1020
AAATCAATGG TGGTAACGCC TTGTCTATCC CTTATGCCAA AGGATTGGC TGGGGGGCAG	1080
AACTGACCTT CAAATTGATG TTTGAACGCT TATTTGCTGA AGAAATGGGC GGTGGCTACC	1140

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CAAGAGAACG	TGTAATCCCT	GAACAACGCA	ACGCTCGTAT	CTTAAACGAG	GTGAAACAAA	1200
TCACCCACAA	TGATTTGATG	ACCATCCTTA	AAATAATCGA	CCAAGACTTC	CTCAAAGACA	1260
CCATCTCTGG	CAAATACTTC	CAAGAATACT	TCTTTGAAAA	CTGCCAAGAT	GATGAAGTTG	1320
CTGCTTATTT	GAAAGAAGTA	TTAGCCAAGT	AAAGCTATTC	TAAACCAGAA	AGGAACTAAT	1380
GGATGACGAA	AATATTACTG	TTGGGCGAAC	CATTAAATTCG	AATTTACCA	TTAGATGCCA	1440
CCAGTATCGG	CGATCATGTT	GCCAGTTCGA	CTTATTTTGG	CGGATCAGAA	ATTAACATCG	1500
CTTGTAATTT	GCAAGCCCTG	GGTATCTCAA	CGAAAGTTTT	TACCGCACTC	CCTGCCAACG	1560
AGATTGGAGA	TCGTTTCTCT	ACATTCTTGA	AACAGCACCA	AATCGATACC	AGTTCAATCT	1620
GTCGGCTTGG	CGATCGAATC	GGCCTCTACT	ATTTGGAGAA	CGGCTTTGGT	TGTCGTCAAA	1680
GTGAAGTTTT	CTACGATCGT	AAGCATACGA	GTATCAGCCA	GATTCGGCCA	AACATGCTAG	1740
ATATGGATTC	TCTCTTTCAG	GGGATTAGCC	ATTTTCATTT	TAGTGGAAATC	ACCGTAGCTA	1800
TCGGTCAAGA	GGTCCGTGCG	ATCCTTCTCC	TACTCTTGGA	AGAAGCCAAG	CGCCGAGGAA	1860
TTGTCGTTTC	AATGGATCTC	AATCTGAGAA	CAAAGATGAT	TTCAGTCCTA	GAAGCCAAGT	1920
ATGAATTTTC	TAAGTTTGCA	CGTTTTACTG	ACTATTGCTT	CGGTATTGAT	CCTCTCATGA	1980
TTGATGACCA	AAATCTAGAG	ATGTTTCCAA	GAGACAGTGC	TAGCCTAGAA	GAGGTGGAAA	2040
ATCGCATGCG	ACTTTTAAAA	GAAGCCTATG	GTTTCAAGGC	CATTTTCCAT	ACCTCCGCT	2100
CTAGTGATGA	GCAAGACAAA	AATGTCTATC	AAGCCTATGC	TCTAGAAGAA	CTATTTGAAG	2160
AGTCTGTCCA	ACTAAAAACT	GCAGTCTATC	AACGAATTGG	TAGCGGGGAT	GCCTTTATAT	2220
CTGGTGCCCT	TTACCAACTA	CTCCATCATT	CCTCCCTAAA	AACTACCATT	GACTTTGCAG	2280
TTGCGAGCGC	AACTCTCAAA	TGCACTCTTC	CAGGAGACCA	TCTCTCCACT	TCCTCAACTA	2340
GTATTGAAAA	TTTACTGGCA	AATGCACAAG	ATATCATTCG	TTAGGAGAAT	TACATGACCA	2400
AATCAGATAC	GATTATTGAA	CTAAAAAAC	AAAAAATTGT	CGCTGTTATT	CGAGGAAATA	2460
CAAAGGAAGA	AGGACTACAA	GCCTCGATTG	CTTGTATCAA	GGGCGGTATC	AAAGCTATTG	2520
AAATCGCCTA	TACCAATCAG	TATGCAGGAC	AAATCATCAA	GAAACTTGTA	GACTTGATATC	2580
AGGACGATCA	GAGTGTTTGT	ATCGGTGCAG	GTAATGTGCT	TGATGCCGTA	ACTGCTAGAG	2640
ATGCCATTCT	AGCTGGAGCA	AATTACGTTG	TTTCTCCATC	TTTCCATGCT	GAAACTGCGA	2700
AAATGTGCAA	TCTCTACAGC	ACACCGTACA	TTCCAGGCTG	TATTACCCTC	ACAGAGATCA	2760
CGACTGCACT	TGAAGCCGGT	AGTGAAATCA	TCAAACCTCT	CCCAGGTAGT	ACTCTCAGTC	2820
CAGCATATAT	CTCTGCAGTC	AAGGCACCGA	TCCCACAAGT	TTCCGTAATG	GTAACCGGAG	2880

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GAGTCGGCCT	AAACAACATC	CCTCAATGGT	TCGCTGCTGG	TGCAGATGCC	GTTGGAATTG	2940
GTGGCGAACT	CAATAAACTC	GCTTCCCAAG	GCAACTTTGA	CCGCATCAGC	GAGATTGCCC	3000
AACAGTATAT	TACACTCAGA	TAAAATCATA	ACTACCCGTC	TAACGGGTGG	TTTATCTCAG	3060
AGCTATAAGC	CCAAATCATC	AGCCAGCGCC	TAAAGACGCT	GGCTTTCACG	TTGTTCAAGC	3120
CTTATTGCTC	TTGACTCGTC	ACTTGCCTCT	TTAAGAGACT	TTGGTATTAC	TTACCACTAT	3180
CCCTAAAGGG	ATCCTCATAT	TCTTTTACAC	TCAATTTATC	TAGTGCTATA	GTAGATTGAA	3240
ACTGGAATAG	TACACCTCTG	CTTCTAAAAC	ATTGTTAAAA	ATCGATTTGA	CTGTCCTGAT	3300
CGATTTTGTC	CTGTTCTTAT	TTCATTTTAC	TATATATCAT	ACTTTACTCG	TTCTCAAATT	3360
TTCATACTCA	TGAAGAAATC	ATCCACTCGA	TAATTTCTTT	AATCTTGACT	ATATTTCTTA	3420
ATTGTGGCTT	CATTAAGCCC	TACTGGACTT	ACATAATAAC	CTTCCTCCCA	GAAATGCCGA	3480
TTCCCAAAC	TGTACTTGAG	ATTGGCGTGT	TTGTCAAACA	TCATGAGTGC	ACTTTTGCCT	3540
TTTAAATACC	CCATAAACT	TGAAACACTT	AGCCTCGACG	GAATACTGAC	TAACATGTGT	3600
ACATGGTCTG	GCATTAAGTG	ACCCTCGATC	ATTTCACAC	CTTTATAACT	ACACAAGCGA	3660
TGAAATATTT	CGTCTAACT	ACTTCTATAT	TGATTATAGA	TGACTTTTCG	TCTATACTTA	3720
GGGGTGAACA	CAATATGATA	GAACACCTCC	ACTTTGTGTA	TGATAAACTA	TGAGTCTTTT	3780
GTGCCATATT	TTTTCTCCTT	TCGCTTTACA	ATTGGATTGA	ACACCTTTAT	TGTATCGCGT	3840
TTGGAGTTT	TTTGGTATAA	CCTTCGACGC	GCACCCGTAT	AGCGGGTGGT	TGTTTTGTCT	3900
CGCACCTCAC	GGAGCGAGAC	GGACTAATAT	AGTGGAGTGA	AATAGGATAC	GAACAAATTG	3960
ATTAGGAAAA	TCAAATGAAT	TTATAGAAAT	CTTTTAGCAG	TTATAACGTT	CTATTCTAGT	4020
TTCAAAACGC	TATAGTCACA	TAATAATGAA	GTAAAAAAGG	ATAAGTATCA	ACTTATCCTT	4080
TTTTAAAAGA	AAAATCCGAA	GATATTTGGC	CTTCTTCGGA	TTTTTTCTAT	TTTCCACAGT	4140
TTCATGTAAT	TCATCTAGAT	GATGAACAAA	TTAGTTGTTC	TTTCCTCTAC	GGAATAGATA	4200
AAATGCCCCA	AGTAGCAAGA	ACCCTAGACT	TGCCAAGATT	GACTGACCTT	CTCCTGTCTG	4260
AGGGAGATTC	TTTTGATCCG	AATGGTTCTT	TTCTCTTCA	GATTTTTCCT	TTCTTTTGA	4320
ATTCTGTACT	TGTGGCTGAG	CTGCTTGCTC	TAGCTTTTTA	AAGACTTCCT	GATCTGGAGC	4380
TGATTCCCTGG	GTTTCAGGAT	TATAGTAGGC	AATCTTATAT	TCATCCCCTT	CTTTTCGAAT	4440
GGTATAGACT	CCACGTTTCA	AACTTGGAA	TTGGTTGGAA	ATAGTAGAGA	CAGAATCATC	4500
ATATTTTACA	ATGCCCCAAA	CTCCTTGTTT	AGCATCATAA	ACAGACTGAA	GGGTTTCGTT	4560
ATTTTTCGATG	AGGCTACTTT	CTAACTCTTT	TATCATTTGA	TTGAAGGTGG	CACGATCCAC	4620
GTTAGGAATG	AGCATATAGC	CATAAGAATC	TCTATTTTGC	TTATGAGCCT	GACTAATCGT	4680

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AAGAAATTCA	TTTTCAACTT	CCTTGCTCTGA	CTGTCCTTCA	TTGATATCCT	TCCAGGCTCC	4740
CTTTTGCAAA	GCCTTACTCA	TACTGATTGA	ACTCTTCTTA	AAGAAAAAGT	AACCAATATT	4800
CTTTTTCGAA	TCGAACGATT	CTAAAAAGAC	ACTTTGGGTT	TCAGGATAAT	CCTTTTCTTG	4860
TTCTGTAAGG	GAGGCTTCTT	TATCATTGAC	ATAGACTTTA	TATGGATTAC	CTGATTCCAG	4920
TTTTCTCTGG	TCAATGTAG	TTGCAGCAGT	ATCTGTTGAA	GTGTTTGGGA	TATTGCTTCC	4980
TAAAAAGGCG	ATCTTATCCT	TTAGCATAAA	CCAGCTCTTA	TGAGCAGTCA	ATGTTTGATT	5040
CCAGTTGGTG	AAATCCATGG	TTGCTGTCGC	ATTGGCATCA	TCTAGTTTGC	TCGTTCCAAC	5100
GAAAGCAGAC	GGTAAACTT	TACCTGTATC	GCTATCCGCT	CTCTTAGCAT	CCGTCTCTGT	5160
TGTACCAGGC	ATCTTATATG	GATTAAGTGT	TGGCCAGTAG	CCATCGCTAT	AGTGACTCAA	5220
ATCGCCATTG	TAAAGATAGA	ACATCCCATC	ACTCGTATAC	CAACCACGTT	TATTTTCCTT	5280
GTTTCATGTGT	TCGTAATTCA	AGGTACGACT	GAAAAAGAGT	GACAAGCCAA	ATCCAAACCC	5340
TTTCTCTGCA	TTGTACATGG	CTGTTTATC	CATCTTGTTA	AAGGCAGATA	GGTAACTTGG	5400
TCTTGAACA	CTTGCGACTC	CTGCATCACT	TAACAAGGAT	TGCATCAAAC	TGATATCCTT	5460
ATAAGTCTTC	AAATCTTAA	AGACATCATA	ATAACTATCC	GATTGAACAA	TGGTCTTCAC	5520
AAGACTCTGC	AAACATTGTT	TGGTTTCTCC	TTCAGACATA	TCCGCTATTC	GGTGAATCCC	5580
TCTTAGTACT	TCTACTGCGG	CCACGTGCCC	CTCGCTATTT	GCACGACTGA	TCGAGCGTCC	5640
ACGACTCATA	TCCATCAACT	CTCCATTAC	CAGCAAAGGA	GCAAACGATT	TATCAATCCA	5700
GTGGTACATG	GTTTGCATTT	TATCTTTATC	GATTGGATTG	TTGGTCTTTT	GAATGACTGG	5760
CAACAGTTGA	GACAGGCCAT	CAATCAAAAC	ATTCCCATAA	GCACCCGTAT	AGGCAACATT	5820
GGTGTGGTCG	ATATAGGATC	CATCTTGATA	AAAACCTTCA	CCTTGGTCTA	CCAACTTGAA	5880
CACTTGCTCA	ATCGAGCGAA	TGGTAGAAGA	AATTTCTTGA	TCATCCTTAC	GCAGTAAACC	5940
AGCTATTACT	TTTACCCCTC	CCATATCAAC	TAAGTTTCCA	CCTAGAGCCT	TGAATGGGTT	6000
ATCAGTCGTC	TTTCGGAAAT	GTTTCGGGATC	TGGTACAAAT	TTTCAATCA	CATCTGTATA	6060
TTTTTTAATT	TCCTCATCAG	AGAAGTATTC	TTTCATCAGA	GACAAGGTAT	TGTTGATGGC	6120
ACGAGGTGTA	CCGATTTTCAT	AATCCCACCA	GTTCCCAACA	ATGCTCTTTT	CACTATTGTA	6180
GACATGTTTA	TGCATCCATT	CCATGGAATC	CCTGACTGTT	CGAACGACAG	TTTCATCTTG	6240
ATAATAACGA	GAAGAAGGAT	TGGTCACCTG	CTTGCCCATC	TCCTCCAATT	TCCGATAAGT	6300
GGCAGTCAGA	TTTGCAGACG	TTTATAAATT	TGAAAATTTT	TCCCACAAAT	AGGTGCGGTC	6360
CGCCTGACTT	GAAATACTGG	ATAGGCTATC	AGCTACCTTT	CCTTCCAATT	CCTGGTTTAA	6420

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TTTGCCATC TGTTCATTTT TAGAATCATA GTATTGATTC CCAGCGATGA TGCCATTCCA	6480
GTCATCCAAA CGGTCTGTGT ATGCATCCTT AACAGAGGCC AGAATCTTCA AAGGAATCTT	6540
TTTCACTTCC TTGCCATCTT TACTGACAAT GACATTGGTT GTCCCTTCCT TAAGAGGTTT	6600
TAAAATTTCCA TTTTGTACTG AAGCAACGTC AGGATTTTCT ACCTTATAAG TATAGTCCGC	6660
AAGAGAAAAA ACATGTTTTT TTCCAATTGG TAAATCAATC TTTTCCTCAA GCTGTTTATC	6720
TGTTTGAGAA TCCTCAGAAA GCTGGTCTGC TACCTCTACC AGCTCAATAT CCTTAAAGGA	6780
AACAGTCCCA GTTCCTGTTT CATAGAATAA CTCAGCTTG ATTTTATCAA CATCTAAAGT	6840
CGGGCTATAG TCTGCTTCAA TGGTCTGCCA GTCCTTTGTT CCTGACGTCG TTGCAGAATT	6900
CCACAATCGC TTGTCCTTAC CACTTTCCTC AATGATACGA ACTTTGGCAA TCCCGATTTT	6960
ATTATCTGTT TTAATCTTGA AACGCAGTTT ATACTTTTTC TTAGCTTCAA TAGGAACCAT	7020
ACGGTGAAGC GCTGCCCTTA ATTTCTCATG GCTTGAGATA GTGATAGCCC CATCCTTAGC	7080
CTCAATGACT CGAGTTGAGG CATCTGCACT ATTCTTCTGG TCTACCCAAG CTGACCACCC	7140
CCTGAGCTTT GCTTCCTGTC CGG	7163

(2) INFORMATION FOR SEQ ID NO: 68:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9244 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 68:

CGTTATAACA TACATGTAAG CGGTACCCAA AATGGTGCCA AGTCAAAATT TTAAAGGAGG	60
AAAATACATG TCTTCACATC CAATTCAGGT CTTCTCAGAA ATTGGGAAAC TGAAAAAAGT	120
TATGTTGCAC CGTCCAGGCA AGGAGTTAGA AAACCTGTTG CCGGACTATC TTGAAAGGCT	180
TCTTTTGTAT GATATTCCTT TCTTGGAAGA TGCTCAAAAA GAACATGATG CATTTGCCCA	240
AGCTCTTCGC GATGAAGGAA TTGAGGTTCT CTACCTAGAA CAACTCGCTG CTGAATCATT	300
GACCTCTCCA GAAATCCGCG ATCAATTTAT CGAGGAATAC TTAGACGAAG CCAACATCCG	360
TGATCGTCAA ACCAAGGTTG CTATTCGTGA ATTGCTTCAC GGCATCAAGG ACAACCAAGA	420
ATTGGTTGAA AAAACAATGG CTGGGATTCA AAAAGTTGAA TTGCCAGAAA TTCCTGACGA	480
AGCTAAAGAT CTAAGTACT TAGTTGAATC AGAGTATCCA TTTGCAATTG ACCCGATGCC	540
AAACCTCTAT TTAAGTCGCG ACCCATTTGC AACAATTGGA AACGCCGTAT CGCTTAACCA	600
CATGTTTGCA GAACTCGTA ACCGTGAAAC ACTCTACGGT AAGTATATCT TCAAATACCA	660

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CCCAATCTAT	GGCGGAAAAG	TGGATTGGET	CTACAACCGT	GAAGAAGATA	CGCGTATCGA	720
AGGTGGAGAC	GAGTTAGTTC	TTTCTAAAGA	CGTCCTTGCA	GTAGGTATCT	CTCAACGTAC	780
AGACGCAGCT	TCTATCGAAA	AACTTTTGGT	CAACATCTTC	AAGAAAAATG	TTGGCTTCAA	840
GAAAGTTTGT	GCCTTTGAAT	TTGCTAACAA	CCGTAAATTC	ATGCACTTGG	ATACTGTCTT	900
CACTATGGTA	GACTATGACA	AGTTCACTAT	TCACCCAGAA	ATCGAAGGCG	ACCTTCACGT	960
TTACTCAGTT	ACTTACGAAA	ACGAAAACT	TAAAATCGTT	GAAGAGAAAAG	GTGACTTAGC	1020
TGAACTTCTT	GCTCAAAACC	TTGGTGTAGA	AAAAGTTCAT	TTGATTCGTT	GCGGTGGTGG	1080
CAATATCGTA	GCAGCTGCGC	GTGAACAATG	GAACGACGGT	TCTAACACTT	TGACCATCGC	1140
ACCTGGTGTG	GTAGTTGTTT	ATGACCGCAA	TACCGTGACC	AATAAGATTT	TGGAAGAATA	1200
CGGGCTTCGC	TTGATTAAGA	TTCGCGGAAG	TGAATTGGTT	CGGGGCCGTG	GTGGACCTCG	1260
TTGTATGTCT	ATGCCATTG	AACGTGAAGA	AGTGTAATCG	CTGTTCGATA	TTCGTCAATA	1320
GAAAATGTAA	AAAATAGAAA	GAGGAAATAA	TAAAATGACA	AATTCAGTAT	TCCAAGGACG	1380
CAGCTTCTTA	GCAGAAAAAG	ACTTTACCCG	TGCAGAGTTA	GAATACCTTA	TTGGTCTTTC	1440
AGCTCACTTG	AAAGATTGTA	AAAAACGCAA	TATTCAACAC	CACTACCTTG	CTGGCAAGAA	1500
TATCGCTCTC	CTATTTGAAA	AAACATCTAC	TCGTACTCGT	GCAGCCTTTA	CAACTGCGGC	1560
TATCGACCTT	GGTGCTCACC	CAGAATACCT	CGGAGCAAAT	GATATTCAGT	TGGGTAAAAA	1620
AGAATCTACT	GAAGATACTG	CTAAAGTATT	GGGACGTATG	TTTGACGGGA	TTGAATCCG	1680
CGGATTCAGC	CAACGTATGG	TTGAAGAATT	GGCAGAATTC	TCAGGCGTTC	CAGTATGGAA	1740
CGGTCTAACT	GACGAATGGC	ACCCAATCA	AATGCTCGCT	GACTACTTGA	CTGTTCAAGA	1800
AAACTTCGGT	CGCTTGGAAG	GCTTGACATT	GGTATACTGT	GGTGATGGAC	GTAACAACGT	1860
TGCCAACAGC	TTGCTCGTAA	CAGGTGCTAT	CCTTGGTGTC	AATGTTTACA	TCTTCTCACC	1920
AAAAGAACTC	TTCCCAGAAA	AAGAAATCGT	TGAATTGGCA	GAAGGATTTG	CTAAAGAAAAG	1980
TGGCGCACAT	GTTCTCATCA	CTGAAGATGC	TGATGAAGCA	GTTAAAGATG	CAGACGTTCT	2040
TTACACAGAC	GTTTGGGTAT	CAATGGGTGA	AGAAGACAAA	TTTCGCAGAAC	GTGTAGCTCT	2100
TCTTAAACCT	TACCAAGTCA	ATATGGACTT	AGTTAAAAAA	GCAGGCAATG	AAAACCTTGAT	2160
CTTCCTACAC	TGCTTGCCAG	CATTCCACGA	TACTCACACT	GTTTATGGTA	AAGACGTTGC	2220
TGAAAAATTT	GGTGTAGAAG	AAATGGAAGT	AACAGACGAA	GTCTTCCGCA	GCAAGTACGC	2280
TCGCCACTTC	GATCAAGCAG	AAAACCGTAT	GCACACTATC	AAAGCTGTTA	TGGCTGTCTAC	2340
ACTTGGTAAC	CTTTATATTC	CTAAAGTATA	ATTTTAGATA	ATAAACCGTC	TACCAACAGC	2400

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TATGAGGGCT	GCGACTAATA	GCTTTAGTCC	GGTCCTCTTT	TATGTAATGG	TAATCTATTA
TTTCTTATAA	AATATGTGAA	AAATCATTAA	ATTGAAATCT	AAACGCATTC	TATTGAGTGT
GATAAAGGAG	AATTTATGGC	AAATCGTAAA	ATTGTAGTAG	CTTTGGGAGG	AAATGCGATT
CTTCTTCTG	ACCCATCAGC	AAAGGCTCAA	CAAGAAGCTT	TAGTTGAAAC	AGCTAAGCAT
CTTGTAATAA	TGATTAAAA	TGGAGATGAT	CTGATTATCA	CTCACGGTAA	TGGACCTCAA
GTGCGGAATC	TCTTGCTCCA	ACATTTGGCA	TCAGACTCTG	AAAAGAACCC	TGCCTTCCCA
CTCGACTCAC	TTGTCGCTAT	GACAGAAGGT	AGCATCGGTT	TCTGGTTGAA	AAATGCCTTG
CAAAATGCTC	TCTTGATGA	AGGCATCGAA	AAAAATGTTG	CCTCTGTTGT	AACGCAAGTT
GTCGTAGATA	AAAATGATCC	AGCTTTTGTT	AACTTGAGTA	AACCAATCGG	TCCTTTCTAT
TCAGAAGAAG	AAGCAAAAGC	AGAAGCCGAA	AAAAGCGGAG	CGACTTTCAA	GGAAGATGCT
GGCCGTGGCT	GGCGTAAGGT	CGTTGCCTCA	CCAAAACCTG	TTGACATCAA	AGAAATTGAA
ACCATCCGTA	CTCTTTTAAA	TAATGGTCAA	GTCGTCGTAG	CTGCAGGTGG	TGGCGGTATT
CCCGTCGTCA	AAGAAAACAA	TGGACATTTG	ACTGGTGTG	AAGCGGTAT	TGATAAAGAC
TTCGCTTCCC	AACGTTTGGC	AGAATTGGTT	GATGCAGACC	TCTTCATCGT	TTTGACAGGT
GTAGATTATG	TATTTGTTAA	CTACAACAAG	CCAAACCAGG	AAAAATGGA	ACATGTGAAT
GTTGCCCAGC	TGGAAGAATA	TATCAAACAA	GATCAGTTTG	CACCAGGTAG	CATGCTTCCA
AAAGTAGAAG	CAGCTATCGC	TTTTGTCAAT	GGTCGTCCAG	AAGGAAAAGC	AGTTATTACT
TCCCTTGAAA	ATCTAGGCGC	CTTGATTGAA	TCTGAAAGCG	GAACAATTAT	TGAAAAAGGA
TAAGTTGTTT	TACTAATAAG	ATGTATTCTA	TTTCTAGTAT	CTTTATATCA	AATTAGAAAT
TATTCTTGAA	AACATGTACA	ATATTTCAAA	AGATACTAGT	TTTAGACTTT	AATATGGTAA
AACAAATATA	AATAGAAAGC	GTTTTCTTGA	ATGTTTATTT	AAGAAAGTAG	TTGGTTTTTT
ACACTTTGTT	AGACATCAGG	AGGAAAAACA	AATGAGTGAA	AAAGCTAAAA	AAGGGTTTAA
GATGCCCTCA	TCTTACACCG	TATTATTGAT	AATCATTGCT	ATTATGGCAG	TGCTAACTTG
GTTTATCCCT	GCGGGGGCCT	TTATAGAAGG	TATTTACGAG	ACTCAGCCTC	AAAATCCACA
AGGGATTG	GATGTCCTCA	TGGCACCGAT	TCGGGCTATG	CTAGGTACTC	ATCCAGAGGA
AGGTTGCTC	ATTAAAGAAA	CGAGCGCAGC	GATTGATGTA	GCCTTCTTCA	TCCTTATGGT
TGGTGTTTC	CTTGGCATTG	TCAACAAAAC	TGGTGCTCTT	GACGTAGGGA	TTGCCTCTAT
CGTGAAGAAG	TATAAGGGCC	GCGAAAAAAT	GTTAATTTTG	GTAAGTATGC	CTTTGTTTGC
CCTCGGTGGT	ACAACTTATG	GTATGGGTGA	AGAAACAATG	GCCTTCTATC	CACTCCTTGT
GCCAGTTATG	ATGGCCGTTG	GTTTTGATAG	CCTGACTGGT	GTTGCAATTA	TTTTGCTCGG



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TTCTCAAATC	GGCTGTTTGG	CATCTACTCT	GAATCCATTT	GCGACAGGTA	TTGCTTCAGC	4260
GACTGCGGGA	GTTGGTACAG	GGGACGGTAT	CGTACTTCGT	CTGATCTTCT	GGGTACCTT	4320
GACTGCTCTT	AGTACTTGGT	TTGTTTACCG	TTATGCGGAT	AAGATTCAAA	AAGATCCGAC	4380
TAAGTCACTG	GTTTATAGTA	CTCGCAAAGA	AGATTTGAAA	CACCTTAACG	TAGAAGAATC	4440
TTCATCTGTA	GAATCTACAC	TTAGCAGCAA	ACAAAAATCA	GTTCTCTTCT	TATTTGTGTT	4500
GACATTCATC	TTGATGGTAT	TGAGCTTCAT	TCCATGGACA	GACCTTGGCG	TTACCATTTT	4560
TGATGACTTT	AATACTTGGT	TGACTGGTCT	TCCAGTTATT	GGTAATATTG	TCGGTTCATC	4620
TACTTCTGCA	CTAGGTACTT	GGTACTTCCC	AGAAGGCGCA	ATGCTCTTTG	CCTTTATGGG	4680
TATCCTGATT	GGTGTATT	ATGGTCTTAA	AGAAGATAAG	ATTATCTCTT	CCTTCATGAA	4740
TGGTGTGCT	GACTTGCTCA	GTGTTGCCCT	GATCGTAGCG	ATTGCTCGTG	GTATTCAAGT	4800
TATCATGAAC	GACGGTATGA	TTACCGATAC	AATCCTCAAC	TGGGGTAAAG	AAGGCTTGAG	4860
CGGTCTATCT	TCACAAGTCT	TTATCGTTGT	AACTTATATC	TTCTATCTAC	CTATGTCATT	4920
CTTGATCCCA	TCTTCATCTG	GTCTTGCCAG	CGCAACTATG	GGTATCATGG	CTCCACTTGG	4980
AGAATTTGTA	AATGTCCGTC	CTAGCTTGAT	TATCACTGCT	TACCAATCTG	CTTCAGGTGT	5040
CTTGAACCTG	ATTGCACCAA	CATCTGGTAT	TGTGATGGGA	GCTCTTGCAC	TTGGACGTAT	5100
CAACATTGGT	ACTTGGTGGA	AATTCATGGG	CAAACCTGTA	GTCGCTATTA	TTGTAGTGAC	5160
CATCGCCCTT	CTTCTCCTTG	GAACCTTCCT	TCCATTCCCTA	TAAAATAGTG	AGTGAGGTGA	5220
TTCCATGAAA	ATAGATATAA	CAAATCAAGT	TAAAGATGAA	TTTCTTATAT	CATTAAAAAC	5280
CTTGATTTC	TATCCTTCAG	TACTCAATGA	AGGAGAAAAT	GGAACACCTT	TTGGACAAGC	5340
AATCCAAGAT	GTCCTAGAAA	AAACTTTAGA	GATTTGTCTGA	GACATAGGTT	TCACTACCTA	5400
TCTTGACCTT	AAAGGTTATT	ACGGATATGC	AGAAATCGGT	CAGGGAGCAG	AGCTTCTGGC	5460
CATTCTCTGT	CATTTGGATG	TTGTTCATC	AGGTGATGAA	GCAGATTGGC	AGACACCGCC	5520
ATTTGAAGCA	ACTATCAAAG	ACGGCTGGGT	ATTTCGGACGT	GGTGTCCAAG	ATGATAAAGG	5580
CCCTTCGCTC	GCAGCTCTCT	ATGCAGTAAA	AAGCTTGCTG	GACCAAGGTA	TTCAGTTCAA	5640
AAAGCGCGTA	CGCTTTATCT	TTGGTACCGA	TGAGGAAACC	CTCTGGCGCT	GCATGGCACG	5700
CTACAATACC	ATCGAAGAAC	AGGCCAGTAT	GGGCTTTGCA	CCTGACTCAT	CTTTTCCTCT	5760
GACCTATGCT	GAAAAAGGGC	TTCTACAGGT	CAAAC TTCAT	GGCCCTGGAT	CGGATCAACT	5820
AGAGCTTGAA	GTAGGAGGCG	CCTTTAACGT	TGTACCAGAC	AAGGCCAACT	ACCAAGGTCT	5880
CCTCTATGAA	CAGGTTTGTA	ACGGTCTCAA	AGAAGCTGGT	TATGATTACC	AAACCACTGA	5940

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ACAAACCGTA	ACGGTTCTCG	GAGTGCCAAA	GCATGCTAAG	GATGCTAGTC	AAGGTATCAA	6000
TGCTGTCATC	CGACTAGCTA	CCATTCTTGC	TCCTCTCCAA	GAACACCCCTG	CTCTCAGTTT	6060
TCTTGCAACA	CAAGCAGGTC	AAGACGGCAC	AGGAAGACAA	ATCTTTGGTG	ATATAGCAGA	6120
TGAACCTTCT	GGTCACCTAT	CCTTTAATGT	CGCAGGTCTC	ATGATCAATC	ATGAACGTTT	6180
TGAAATCCGT	ATTGACATTC	GGAATCCTGT	CTTAGCTGAC	AAGGAAGAAC	TAGTAGAGTT	6240
GCTTACAAGA	TGTGCACAAA	ACTACCAACT	CCGCTACGAA	GAGTTTGACT	ATCTAGCGCC	6300
TCTATACGTC	GCAGAAGACA	GTAAACTCGT	TAGCACACTG	ATGCAAATCT	ACCAAGAAAA	6360
GACTGGCGAT	AACAGTCCTG	CTATTTTCATC	CGGTGGTGCC	ACTTTTGCTC	GCACCATGCC	6420
AAATGTGTGA	GCCTTCGGCG	CCTTATTTCCC	AGGAGCGAAG	CAGACAGAAC	ATCAGGCAAA	6480
TGAATGTGCC	GTTCTAGAAG	ATTTGTACCG	TGCTATGGAT	ATTTATGCCG	AAGCCGTCTA	6540
TCGACTTGCA	ACTTAATCAG	GCAACTGTTT	CTACCAAAAA	AAATCGACCG	ATTAATGAAC	6600
TGCACCCCAA	AAGTTAGACA	GAATAAATCT	AACTTTTGGG	GTGTTTTATT	ATGAAATTGA	6660
GTTATGAAGA	TAAAGTTCAG	ATCTATGAAC	TAAGAAAGCA	AGGACAAAGC	TTCAAACAGC	6720
TTTCAAAAAG	ATTTGGTGTG	GATGTTTCTG	GTCTAAAGTC	ATCTGAATCT	TTGAGATGAG	6780
CTTTATAAAT	CGCTTTTTTC	AGTTTTTGCA	CTGGTGTTC	GATAAACTCA	AACTTTTTAG	6840
CCGTGGTATT	GCCTGATTTT	ATAGTATATT	GAAACTAGAA	TAGTACACCT	CTCCTTCTAA	6900
AACATTTTTA	GAAATCGATT	TGACTGTCCT	GATCGATTG	TCCTGTTCTT	ATTTCAATTT	6960
ACTATATTTG	AGCCACTTCG	TCTTTAACGG	CTTTATTCAT	AAGCTCTTGT	AATTTTCTT	7020
TACTATCAAT	TACTTCTGAT	TTTCCGTTGT	AATTTATTGT	AATAGGTTTT	AACTTACCTA	7080
ATTTCTCGAC	ACGCTCATTA	ATTTGATCTT	TTTTGAAGGC	TGCTTATGTT	TTTCTAAGA	7140
TTTTTTCAAA	AATATATTTA	TCAGATAGCG	GTTTGTCTTC	TTCTTCAGCT	TGGTTTTTGT	7200
ATTAATTTGA	AACATAAGGA	ACAAATCCTT	CATAGTAACC	TAATGCTCCC	ATAAGTTCAA	7260
AAGCTTGTTT	TCTAATTCAA	ACCATTGCAA	CTCAGATTTC	AGCTTTTCAG	ATAAATCCTG	7320
CTCATCCAAA	TAATGACTTG	AAATTAGTGC	TGAACTCGTT	TCTGTATCCT	GTACAGGCTG	7380
AGCACCCATA	CCAGCAAAAA	ATAAACTCGT	TCCTAGCAAG	ACCGAACAAG	CTCCTATTGC	7440
ATATGGCCTC	AAAGAAAAAC	GCTGCTTTCT	CTCAAATTGA	AATCTTTTCA	TCCCATCTCC	7500
CATCATTCAT	TATTACTGTA	TATTTTGTAT	ATCAGAAAATA	GTTTGTATTC	ACAAATCTTT	7560
CTAGTTATTC	CCTTATCATT	CCTAATTAAG	GGAGATAACA	TACAATAATT	TTTAGTTAAA	7620
TGTATATCGA	TGTTTTTTGT	TTTTCTTAAT	AAACGCAATA	CAAAAAGAGC	CTGTTACCAA	7680
GCTCTTTGTA	CTCAATGAAA	ATCAAAGAGC	AAATTAGGAA	ACTAGCCACA	GGTTGCTCAA	7740

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AACACCGTTT TGAGGTGCA GATAGAACTG ACGAAGTCAG CTCAAAACAC TGTTTTGAGG	7800
TTGCAGATAG AACTGACGAA GTCAGTAACA TCTATACGGC AAGGCGACGC TGACGTGGTT	7860
TGAAGAGATT TTCGAAGAGT ATTAGTCTAT TATTTCTTCT CAGCGCGAAG GGCTGACAAG	7920
ATTTGTGTTC GGATATCATC CACACCATTG GGAGTATTTG GTAAAAAGAT AGTTTGATT	7980
CCTTTAGAGG CAAAGGTATT CAAGGTATCC AAATACTGGT TGGTCAAGAG GATAGACATG	8040
ATTTGTTCTT CTGTCATGCC AACATTGGCT TCCTTGAGTT CGGTGATAGA CTCTGCCAAT	8100
CCATCCACAA TCGCCTTACG TTGTTGGGCA ATCCCCACAC CATGAAGGCG GTCTTTTCT	8160
GCTTCTGCTT CAGCTGCAGT GACAATTTTA ATCTTGTCAG CTTCGCCCAA TTCTTGCT	8220
GCGACCCGCT TACGTTGCGC CGCATTGATT TCATTTCATGG ATTGCTTAAC TTCTGCATCT	8280
GGTTCGACCT TGGTAATCAA GGTTTTACG ATAATGTAGC CGTAAGTGGT CATTTCTTCT	8340
GCTACTTGGT GTTGAAC TTC AAGGGCAATC TCATCTTTT TCTCAAACAA TTCATCCAAG	8400
GTTAATTTTG GAACAGAAGA GCGAAGAGCA TCTTCGATAT AAGATTTAAT CTGAGATTCT	8460
GGACGTATGA GTTTATAGTA AGCATCTGTC ACGCTCTGCT CGTTGACACG GTACTGAGTC	8520
GCTACATTCA TCATAACGAA CACATTGTCC TTGGTCTTAG TCTCAACCAC AATATCACTT	8580
TGCAACAAGC GCAACTGAAT CCGTGCTGCA ATCGAGTCAA TCCCAAAAGG CAAGCGAATA	8640
TGAATACCGC TATTAGCAAC CTTTGGTAT TTCCCAAAGC GTTCAATAAT CGCCACCGAC	8700
TGCTGACGAA CCACATAAAC TGTAATCAGT GTGACTATCA CCAATAGGAG CACACAAACA	8760
ATCAGAAAAA TCATGAAAAA TATTGCCATA ATGGAACCTC CACAAGTATT TTTCTAGTAT	8820
TATAGCACAT TTAAAGAAGG CTGTGCCGTT TTTACTGCGA TTTTTCCTGA AATGTCAATA	8880
ATTAGAGGTG AATTGTCCTA TTGTCGTCCA ATCTCTTGCT AAAATAACTC TTTATAAAAG	8940
GCAATCGTTT CTCTAAGGT TGGCATAAAT GGATTTCTG GTGCGCAGGC ATCAATCAAG	9000
GCATTCTTAG AAAGGTATTC AAAGTCGAAA TCTTTTCTT CAATACCAAG TTCAGTCAGT	9060
TTCTTAGGAA TACCTACTGT CTCAGAAAAG TTCTCAATCT CAGCAATCGC ATAATCGGCA	9120
CATTCTTGAT CTGATTTACC TTCTACATGA AGTCCCAAGG CTTTGGCAAC ATGCGGAAA	9180
GCTTCTGGTA CACGTTTAGC ATTTTCACGT TCTATAACTG GTAGCAACAT GGCACAGCAC	9240
ACGG	9244

(2) INFORMATION FOR SEQ ID NO: 69:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 8898 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double

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(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 69:

GATCTGAACT TTATCATCAT AACTTAATTT CATAATAAAA ACACCCCAAA AGTTAGATTT	60
TTTCTGTCTA ACTTTTGGGG TGTAGTTCAG TCATTGGACT GACGTTTTTT TGTATGCTTA	120
TTTTGATTG ATGTAGTTGA TACCATCTGC TTTTGGTGCG ACTGCTTTTC CAAAGAAGGC	180
TGCTAAGACA AGAATTGTCA AAACATAAGG TGCAATTGTA AGATAAACCG CTGGCACTCC	240
TTGTAGGAAC GGCAATTGAG AACCGATAAC AGCCAAACTT TGTGAAAGTC CAAAGAAGAG	300
ACTAGAAAGC ATAGCACCGA TTGGATTCCA TTCCCAAAG ATCATCGCAG CAAGGGCGAT	360
AAATCCAGGT CCAACAATAG TTGTCACTGA GAAGTTAACT GAGATTGATT GCGCATAAAT	420
CGCTCCGCCA ATTCCACCTA GAAAACCTGA AATAATAACC CCTAAATATC TCATCTTGTA	480
GACGTTGATT CCCAAGGTAT CCGCTGCTTG AGGATGTTCA CCGACAGAGC GGAGACGAAG	540
ACCAAATTGA GTCTTAAAGA GAATAAACCA AGCAAGGAAT GAGAAGGCAA TCGCCAGATA	600
ACCAAGTAGA CTAGTTGACT TGAAGAAGAT ATCACCAATC ACTGGGATAT TTGCCAAGAC	660
TGGGAAATCA AAGCGTCCAA AAGTTTGACT TAGGTTGTCG GTTTGTCCTT TGTATAAAG	720
AACTTTAACT AAGAAAACAG CCAAGGCAGG CGCCATCAAG TTCAATACCG TACCGCTGAC	780
AACATGGTCT GCACGGAAAT GAACCGTCGC TGCTGCGTGG ATGATAGAGA AAACACTACC	840
AACCAATCCT GCTACAAGCA AGGATAGCCA TGGAGTTGCT GCTCCAAATT GTTCTGCAA	900
TTCAAGGTTA AAGACAACTC CAGAAAAGGC ACCCATAACC ATAATTCCTT CAAGGCCAAC	960
GTTTACCACA CCACCACGTT CAGAGAAAAC ACCACCGATA CTTGTAAAGA TGAGAGGTGC	1020
TGAGTAAATC AGCATAGAAG ACACCAAGAG GGGGAGCAAG GTTATAATAG ACATCTTTAC	1080
TTACCTCCTT TAACCTGTTT TTTCGGTTTG ACAAAGCGTT CGATAAGGTA ATGAACACTG	1140
ACAAAGAAGA TAATAGACGC TGTTACAATG CTGACAAGCT CAGATGGTAC CTGCGCCGCA	1200
TTCATACCAG GAGCCCCAAC TTGGAGAACG CCAAATAGGA AGGCTGCAAA GAGTATACCA	1260
ATTGGTGAGT TGGCCGCAAG CAAACTAACC GCCATTCCGT TAAATCCGAT AGCTAATGAC	1320
GAACCTTGAA CATAGACGTT CTGGAAGGTT CCCAAACCTT CAACAGCTCC ACCAAGACCT	1380
GCCAAGGCAC CTGAAATAAT CATAGATAGG ATAATAGTCC GCTTGGCAGA AATACCAGCA	1440
TATTCTGAAG CATGTGGATT AAGACCAACT GCACGGATTT CAAAACCAAG AGTTGTTTTTC	1500
TTGAGCATGA ACCAAATAAC TGCAACGGCA ATGATGGCAA AGAAAATACC AATATTCATC	1560
CGTGAGTTAC CAGTCAACTC AGCCAACCAA GGTGTCTGAT AGGTTGCATT AGCCCCAACA	1620

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CGAATGGTCG AATCTGTACT TTGCATGAAG TCTTTAGGGA AAGCATGGAT AAAGGCATTC	1680
CCTACATACA AGACAATGTA GTTCATCATG ATGGTTACAA TAACCTCTGA CGTCCCTAGA	1740
TAGGCCCTAA GAATACCTGG AATCGCTCCG ACAATCCCAC CAGCAATCAA GGCAATCAGG	1800
ATGGTTGCTA GAATCATCAA GGGACGGGGC ATATCTGGAT GCGACAGGGC AAACCAACCA	1860
CTGAGAATCC AACCTGCCAA AGCCTGACCA GGAAGTCCGA CGTTAAAGAA ACCAGCTCGA	1920
CTGGCAACGG CAAAACCAAG ACCAATCAAG ACCAGAGGAC CCATAGCACG GAAGATTCTT	1980
CCAATCCCAC GCAGACTGCC AAAGGCTGTA TAGAACAATT CTTCGTAGCC CCAATAGCA	2040
TCATAACCGA AGATCCACAT GACAATGGCT CCGAGTAAAA TTCTAGGAA TACAGAAATC	2100
AAGGGAACCG AAATTTGTG TAATTTTTTA GACATCACTC TTCTCCTTTC CCAAGTTTCC	2160
ACCAGCCATC AAGACACCAA GTTCTTGTTT ATTGGTTGTT TCTGGTGATA CAATACCTTG	2220
AATCTTACCA TCGTGGATAA CGGCAATACG GTCTGAGACG TTTAAAATCT CATCCAATTC	2280
AAAGCTGACA ACAAGGACAG CCTTGCCATT ATCACGCTCT TCAATCAAGC GTTGTGGAT	2340
ATACTCAATG GCACCGACAT CCAACCCACG AGTTGGCTGG CTAACGATAA GGAGATCAGG	2400
ATCTCGATCA ATTTACAGAG CAATAATTGC TTTTGTGTA TTTCTCCTG AGAGTGCAGC	2460
TGCAGGAACT AATTCACTGG CAGCGCGAAC ATCAAACCTCT TCCATCAGCT TTTTAGCATA	2520
AGAAGTAATA TTTGAATAAT TCAAAATTCC ATTTTACTA TGTGGTTCTT TATAGTAGGT	2580
TTGAAGGGCA ATATTTTCAG ATATCATCAT TTCCAAAATC AAGCCATCAC GGTGACGGTC	2640
TTCTGGAACG TGCCCAACAC TTAGTTCTGT AATCTGACGT GGGTGCAAGC CTACAATTGA	2700
ATCTCCTTTT AGCTCAATGC TACCAGATTC AACCTTACGA AGACCTGTAA TGGCTTGAAT	2760
CAGTTCAGAC TGACCATTTC CATCAATCCC CGCAATACCA ACAATCTCTC CAGCACGAAC	2820
ATCCAAGGAC AGATTTTTTAA CAGCTGGAAC ACCACGGTTT TCATTGACCA CCAAATCTTT	2880
GATAGACAAA ACCACTTCTT TTGGTTTAGA GGCTTGCTTC TCTGTTTTAA AGGAAACAGA	2940
ACGTCCTACC ATCATTTCCTG CCAAATCAGC ATTGGTAGCC CTTGCAATTT CAACGGTTTC	3000
AATTGATTTC CCACGACGGA TAACTGTAAC ACGGTCAGAA ACTGCTCGAA TTTCATCCAA	3060
TTTGTGGGTA ATCAAGATAA TTGATTTTCC TTCTTTGACA AGATTTTTC TAATAGCCAT	3120
CAACTCATCA ATTTCTGATG GAGTCAAAAC AGCCGTGGT TCGTCAAAGA TAAGGATATC	3180
AGCCCCCGA TAAAGTGTTT TTAAAATTTC TACACGTTGT TGGGCTCCAA CTGAGATATC	3240
TGCTACCTTG GCAGAAGGGT CAACAGCTAA GCCATAACGT TCAGAAAGAG CTTGATTTC	3300
TTTGCTAGCT CCAGCGATAT CTAGCACACC ATTTTGTGTC AATTCACTAC CTAAAATGAT	3360

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GT'TTTCAGCC	ACTGTGAAGG	CTTCAACCAA	CATAAAGTGC	TGGTGAACCA	TCCCGATTCC	3420
CAAGCTAGCT	GCTTTAGATG	GGGAGTCGAG	ATTGACAAC	TGACCGTTGA	CCGCGATTTC	3480
ACCACTAGTT	GGTTCAGAA	GGCCTGCTAA	CATGTTTCATT	AGCGTGGACT	TACCAGCCCC	3540
ATTTTCTCCT	AAAAGTGCAT	GAATTTACAC	TTTTCGTAGG	TGCAAGTTGA	TTTGTCTGTT	3600
GGCAACAAAT	CCACCAAACA	CCTTGGTAAT	ATCACGCATC	TCAATGACAT	TTTCGTGTGC	3660
CATGTGCTCT	TCCTTTCAGA	GTCTTATTTT	ATTTCATAAA	AACCTTGCTAG	TTTGTCTAGT	3720
AGCAAGCTTT	ACTTAGACAA	AATGACTTTG	TCTCAACTCT	TAAAAAAGCG	GCCCTTGGCC	3780
GCTTCCTAAG	AAATGACTTC	CATCCATTAT	TTTTCAGGAA	CTTTTACGCT	TCCATCAAGG	3840
ATTTTAGCTT	TTGCATCTTC	GACAGCTTTT	TTACCTTCTT	CTGAAAGGTT	TGTTACTGCC	3900
AAGTCAACCC	CTTTATCCTT	CAATGAGTAA	ACGATCACTT	GACCGCCAGG	GAATTCTCCT	3960
CTTTCTGCCT	TGTTAGAAAT	ATCTTTTACA	GTTGTACCAA	CTTGTTTCAA	AGTAGATACA	4020
AGAACAAAGT	TTGATTCTTT	GCCATCTTTA	GAAGTGTATT	TACCTTCTGC	TTCTTGGTCA	4080
CGATCAACAC	CGATAACCCA	AACCTTTTCA	TTTTCAGGAC	GGCTTTCGTT	GAGAGATTTT	4140
GCCTCTGCAA	AGACACCTGC	ACCTGTACCA	CCAGCTACTT	GGTAAACAA	ATCTGCACCG	4200
GCTGCGTATT	GTGCGGCTGC	AATTGTTTTA	CCTTTAGCCG	CATCACCAAA	TGAACCAGCG	4260
TAGTCAACTT	GGACTTTGAT	AGATGGGTCT	ACTGACGCAA	CACCAGCCTT	GAATCCTGCT	4320
TCAAAACGAG	AGATAACTTC	AGATTTCGATA	CCACCTACAA	AACCAACTTG	TTTTGTCTTA	4380
GTTGTTTTTG	CTGCAGCCAC	ACCTGCAAGg	TAACCTGACT	CATTATCAGC	GAAAGTTACG	4440
CTCGCAACAT	TCTTTTGGTC	TTTAATCACA	TCATCAATCA	AGACATAGTT	CAAGTCAGTG	4500
TGTTCTTTTG	CTGCATCTTT	AACTGCATTA	TTAAGGGCAA	AACCAACACC	GAAGATTAGG	4560
TTGTAACCTC	CAGCCGCTTG	TTGCAAGTTG	TTAGCGTAGT	CAGCTTCACT	TGTTGATTGG	4620
AAGTAAGTGA	AACCGTTATC	TTTTGAAAGA	TTGTGTCTTT	TACCCCAAGC	CTGCAAACCT	4680
TCCCAAGCTG	ATTGGTTGAA	TGATTTGTCA	TCAACACCAC	CAGTATCAGT	GACGATTGCT	4740
GCTTTTGTCT	TCACATCAGA	AGATGAAGCT	GCGTTACGAG	AAGAGCGGTT	ACCACATGCA	4800
GCAAGTCCAA	CTGCTGCCAC	TGCAACTAGG	CCAAGACCTA	GCCATTGTTT	CTTGTTCATT	4860
ACTGAACCTC	CTAAATAAGA	TGTGCAACGA	TGTTGCAAGT	ATGGATTGGT	TGGCCACAAG	4920
GACCGTGCCA	CTCAGAGAGC	GACTCAGACT	AGTTTAAAGT	TGTAAAAGAG	TATGGAAGTA	4980
ATTCCCCGAC	CGTCATCTCG	ACCGTCGATT	TATCTTTTGC	GACTAAGGTC	ACTTTTAGAT	5040
CTTGTTCAAA	AAATTCAGCC	ATCACTTGGC	GACAAGCACC	ACATGGCGAG	ATCGGTTTTT	5100
CAGTTTGACC	ATAGACAATC	AATTCTGAAA	ATTCTCTTTG	GCCTTCAGAT	ATAGCCTTAA	5160

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AAATAGCTGT TCTCTCACCG CAATTGGTCA AAGGATAGCT AGCATTTTCA ATATTCACTC	5220
CCGTGTAAAC ACTTCCGTCT TTAGCTACTA AACTGCTCC GATAGGAAAG TGAGAATAGG	5280
GGACATAGGC ATGTTTGCTG GTTTCAATTG CCAGTTCAAT CAACTCAGTA GTCGCCATCT	5340
GCCAATTCTC CTTTTAAAT AGCTACCCCA GCTGACGTC CGATACGGGT CGCACCTGCT	5400
TCGACAAAGG CAAGAGCATC TGCATAAGAA CGAGCTCCAC CGGCGGCCTT GACACCCATA	5460
TCAGATCCAA CTGTTTCAG CATTAATGTA ACATCTGCTA TCGTAGCACC ACCAGTTGAA	5520
AAGCCAGTAG ATGTTTTGAC AAAGTCAGCC CCAGCTTTTT GGGCCAATTG GCAAACAACA	5580
ACTTTTTCTT GGTCTGTGAG AAGGCAAGCT TCAATAATGA CTTTCACTAA CTTATCACCA	5640
CTTGCTTCCA CTA CTGCTGCG AATATCTGAC TCAACCAAGG CTAAATTACC TGATTTGAGA	5700
GCTCCAACAT TGATCACCAT ATCAATCTCA TCTGCACCAT TTTGGATAGC TTCCTTTGTC	5760
TCAAATGCTT TCACGGCTGA AGTTGTTGCT CCCAAAGGGA AACCTACTAC TGTGCAAACC	5820
TTAACATCTG TGCTTCAAG TCCTTTTTTA GCATGTTCAA CCCAGGTCGG ATTAACGCAA	5880
ACACTGGCAA AGTCATACTC TCTAGCCTCA GACAACAAAC TATCAATTG TTTTTCTTT	5940
GCATCTTGTT TTAAAAGCGT ATGATCTATA TATTTATTTA ATTCATTTT GGTTCCTT	6000
CCATTTAGGA GATGATTCTT ACAATTTTAC GGATTTTTTT CACTTCATCA CTTATTTTAA	6060
CACATTTTTG GAAATCTGTA ACTAGTTGAG GTGGAATTTT TTCATTTGTG TATACTTTTG	6120
CAACAATTTC ACCCTTTTGA ACGGAGTCTC CAATCTTCTT TTCAAAAACA ATTCCTGTTT	6180
CATAGTCCAA GGCATCAGAC TTAAGTGCAC GACCAGCACC CAGCCTCATG GCATAAAGAC	6240
CAAAGTCCAT AGCTGGAAGA GCTGAAATGA CACCCGTTTC CTGAGCAGGG ATTTCCACCA	6300
CATGAGCTAC ATTTACAGGA CGATAGAGGT CTTCCAAGTC TCCACCTTGG GCTTGACCA	6360
TTTCCTCAAA CTAGCCAGT GCTTGACCAT TCTCAAGATG TTGGTGAAC TCTTCAACAG	6420
TTTTGTAAAC ATTTGCCAAA CCAAGCATAA TTTGAGCCAA TTCACAAATA AAGTGGGTAA	6480
TATCCTGACG TCCTTGACCT TGCAAAATCT CCAATGCTTC AAGGATTTCC AGACGATTTC	6540
CAATCGCTCG TCCCAAAGGC TGGCTCATAT CCGTAATCAC TGCTACTGTC TTCCGTCCAA	6600
CAACCTTACC AAGATCTACC ATAGTTTGAG CCAACTCACG CGCCTCATCA ACCGTCTTCA	6660
TGAAGGCACC CTCACCGACA GTCACGTCTA GCAAAATAGC ATCCGCCCCCT GCCGCAATTT	6720
TCTTGCTCAT CACCGAACTC GCAATCAAAG GAATCGTGTC GACAGTTGCG GTCACATCAC	6780
GAAGGGCATA GAGAAGCTTA TCTGCTTTGA CCAGCTGGTC TGATTGCCCC ATGACAGATA	6840
CTCCAATATC CTGAACCTGA CGAATAAAAT CCTCTTGACT ACCTTCTACT TGATAGCCCT	6900

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TAATGGACTC CAATTTATCA ATTGTTCCGC CTGTATGGCC AAGACCACGA CCACTCATTT	6960
TTGCTACAGG CACACCGAAG CTAGCAACAA GAGGAGCTAA AATCAAGGTT ACCTTATCGC	7020
CGACACCACC AGTAGAATGC TTGTCAACTT TCACACCATC AATGGCTGAC AGGTCAAACCT	7080
CTTGCCCAGT CTTAACCATA TTCATCGTTA AATCAGAGAT TTCTCGAGTC GTCATTTCCTT	7140
TAAAATAAAC AGCCATAGCA AAGGCAGACA TCTGATAATC AGGAACAGTT CCTGATACAT	7200
AGCCTTCTAT CAGCCATTCA ATTTCACTTG AAGTCAGTTC TTGACCGTCT CGTTTTTTTT	7260
GGATTAAATC AACTGCTCTC ATTCTTTTAC ACTTCTAAGG ATATAGTATC CCTTGTCTTT	7320
TTTAAGGATT TCACAATTGC CAAACACATC TTCCATCTTA GACTTGGCAC TTGGAGCTCC	7380
TTGTTTTTTC TGGATGACGA TGGTCAAATC TCCACCAATT TCCAAGAAAT CTTTACTTTT	7440
CTCGATGATT TCATGAACGA CTTGCTTGCC CGCACGGATA GGAGGATTGG AAATGACATG	7500
GTCAAATCGC CCTTGAACCTC TTGCATAAAT ATTAGATTGA AATATCGTCG CTTTTCGATT	7560
ATTTTTTTCA GCATTTCTCT GAGCTAAATC CAGGGCACGA GTGTTAATAT CAACCATGGT	7620
CGCCTGAACT CCGTAAACCT TGACCAAGGA CAAACCTAAT GGACCATAAC CACAGCCTAC	7680
ATCTAGGACT GTCTCTCCTT GGTGACATC CAGACACTTG AGCAAGAGTT GACTTCCAAA	7740
GTCAACCATT TTCTTGCTAA AAACACCCGC ATCTGTCAAA AAAGTCATT TTTCTCCAA	7800
CAAGTCCACT CTCAACTCAT GAATGTCGTG AGCAGCGTCA GGATTTTCTG CATAGTACAT	7860
TTTACTCATG ACACTATTTT ACCATAATTT GACTCAAATT GTAAATCGTT TACAAATGA	7920
TAATAAAACG AAAAAAGCCG AAGAAAGCAA GTCACGAAGC CATTTTCTTC AATCTCTTTC	7980
AACACTTATA AATAATAAAC CATTTAGAAC TATAAATATC ACAGTCCAGA TAAAAACAAA	8040
AAGTTTATCA TCTATAATCA GGCAGATTAT TATTTCTATT GCTTAACCTT AAAATACTTT	8100
ATTATCAACA AAATTCCTAA CAAAATGTTT AGATAAAAGC CCAACTGATA CGTTTATGTC	8160
AGGATTTCCA AACTTGTCCTA AAGTCGTATC AAATCTTCTA GTGACATGTG GAAGAAATAA	8220
CCCTCTGTCG CAATCCGTAG GACTAAAAAG CAATAACTAC CCGCAGCAAT CCATTTCTGC	8280
CATCGTTTTT TAGTAAGAAA GCAATTAAGA ACGAACAAAT AAAGACAGCT GTTACAATAG	8340
CATGTTCCAT CAAAAAGTA AAACCGTAAT AGGTTTCCAC AAAGCATCTA CCATTATCTG	8400
CATTGGTTCC TTTTATAAAA GGTAAAGCAA AACTTAAAT AAAACAGAGT TCCAATATGT	8460
AACGTTTTAA GATTTTCATA GTACACCTCC TATAAGTTGT GAACTAAAAA GCCCCCTTA	8520
TAAGCTTATA AATCAGTAGA ATCTATCTCC TATTTTCATCA ATAAATTGAT CACTTATACT	8580
ATATAACATT GACTTACCAC ATTCAAGAAA CCGCTTTATT TTTTGTAGCTT TTTATGGTAT	8640
GATAGACAAA ATATCTAGGG GAAAACAAAT GACCAACGAA TTTTACATT TTGAAAAAAT	8700



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CAGCCGCCAG ACTTGGCAAT CTTTACATCG AAAGACAACA CCTCCTTTGA CAGAAGAAGA	8760
ATTGGAATCT ATCAAGAGTT TTAATGACCA AATCAGTCTC CAAGACGTTA CAGATATCTA	8820
TCTCCCCTTG GCTCATTGTA TTCAGATTGA CAAGCGAACT AAGGAAGATT TAGCCTTTTC	8880
AAAAGGAATT TTCCTCCA	8898

(2) INFORMATION FOR SEQ ID NO: 70:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 13188 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 70:

TATCTTAACG aGGATTGGGT TTATCGTCAG TCTTATTGCC CTAATTGTGG GAACAATCCC	60
TTAAATCATT TTGAAAATAA TCGGCCTGTA GCAGATTTTT ACTGTAATCA TTGTAGTGAG	120
GAGTTTGAAC TAAAGAGCAA AAAAGGAAAT TTTTCATCAA CAATCAATGA TGGTGCTTAT	180
GCAACGATGA TGAAGCGTGT GCAGGCAGAT AATAATCCTA ATTTCTTTTT TTTAACTTAC	240
ACAAAAAATT TTGAGGTAAA TAACTTTCTT GTCCTTCCGA AGCAATTTGT TACACCGAAA	300
TCGATTATTC AAAGAAAACC ACTTGCACCA ACTGCTAGAC GAGCAGGTTG GATTGGTTGT	360
AACATTGATT TATCACAAGT ACCTTCTAAA GGAAGGATAT TTCTTGTGCA AGATGGACAA	420
GTTAGAGATC CAGAAAAAGT TACAAAAGAA TTTAAGCAAG GTTTATTTTT AAGGAAGAGC	480
TCTCTGTCAT CAAGAGGTTG GACAATAGAA ATTCTAAATT GTATAGATAA GATAGAGGGT	540
TCAGAATTTA CCCTTGAAGA TATGTATCGT TTTGAAAGTG ACCTAAAAAA TATCTTTGTT	600
AAGAACAATC ATATCAAAGA AAAGATTAGG CAACAGCTTC AAATATTAAG AGACAAAGAA	660
ATAATAGAAT TTAAAGGTAG AGGAAAGTAT CGGAAATTAT GAAAACGAAA CAACTGTGTG	720
CATCAGAAGA GGTGTATGAT TTCTTAAAAG TCATCTGGCC TGATTATGAA ACTGAAAGCC	780
GTTACGATAA CCTAAGTTTA ATCGTCTGTA CCTTATCAGA TCCCGATTGT GTGAGATGGT	840
TATCTGAAAA TATGAAATTT GGTGACGAAA AACAAC TAGC TTTGATGAAG GAAAAATATG	900
GGTGGGAAGT AGGAGATAAA TTGCCAGAGT GGCTACATAG CTCCTATCAT AGATTATTGT	960
TAATAGGTGA ATTATTGGAA AGCAATCTAA AACTGAAAA GTATACAGTA GAAATTACAG	1020
AAACTTTATC ACGTTTAGTA AGTATAGAGG CTGAAAATCC AGATGAAGCC GAACGACTTG	1080
TAAAGAGAAA GTATAAGAGT TGTGAAATTG TTCTTGATGC AGATGATTTT CAGGACTATG	1140

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ACACTAGCAT ATATGAATAG GTAGATGTTT TTATTTTGTG AACAAAAAAG AGGCTCGCAC	1200
CTCTTTTCT TATTCTTTT TATGATTTAA TACGGCATTG AGGACAATAG CGAGTAGGCT	1260
GGCTACGACG ATTCCGTTTG AGAAGAACAT TTGGAAGGCT GTCGGCATGC TGACAAAGAG	1320
ATTACTGTTG TTGAGACCGA CACCTGCAGC GATTGAAACA GCTGCGATAA GGAAGTTGTG	1380
TTCATGTGTA GCAAAGTCAA CACGGGCGAG GATTGTCATC CCTTGAATTG ATACAAAACC	1440
AAACATTACC AGCATGGCAC CACCGAGGAC GGAGCTTGGA ATGATTTGGG CAAGGGCGCC	1500
AAACTTAGGA AGCAGTCCAA GGAGAACCAG GAAACCAGCT GCGTAGTAGA TTGGCAGGCG	1560
TTTTTTGATG CCTGACAATT TAACCAAACC AACGTTTTGT GAAAATCCGG TGTAAGGGAA	1620
GGTGTTAAAG ATTCCTCCGA GAAGTACGGC CAAACCTTCT GCGCGGTATC CGTTGCGAAG	1680
GCGCGTGCTG TCGATTGGAT CCTTGTGAT ATCAGACAAG GCCAGATAAA CACCAGTTGA	1740
CTCAACCATA GACACCGTTG CGATGATACA CATCATGACA ATAGATGAGA TTTCAAAGGT	1800
TGGCATCCCA AAGTAGAGTG GAGTTGGGAC ATGGACAAGT GGAGCTACCG CAACAGGAGA	1860
GAAGTCCACC AAGCCCATAG TAGCAGCAAT GGCAGTTCCA ACAACCAGAC CAATCAAAAT	1920
AGAGATAGAC TTGATAAATC CTTTGGTAAA GATGTTGATC AAGAGGATAA TCAGAACAGT	1980
AATAGCTGCA AGCAAGAGAC TTTGACCAGT TGGCTCTGGA ACGTTATTTC CCATATTTCC	2040
AATAGCGACA GGGATCAAGG TTAAACCAAT CGTGGTAATA ACAGATCCTG TTACGATAGA	2100
TGGGAAGAGA TTGGCTACTT TTGAGAAGAT GCCTGAAACA AGAACCACGT AAATCCCAGA	2160
TGCGATAAGG GCACCAAACA TAGCGCCACT ACCATGGCTT TGCCCAATCA TAATCAAGGG	2220
AGCGACCGAC TGGAAATGCAA CTCCAAGAAC GACTGGGAGT CCAATCCCAA AGTATTTGTT	2280
GAGTTGGAGT TGGAGGAAGG TTGCCACCCC ACACATGAAG ATATCTGTAG AAATCAGGTA	2340
GGTCAACTGC TCAGCTGAAT AGCCAAGGGC TGTCGCAATC ATGATGGGAA CCAGGATAGA	2400
TCCTGAGTAC ATGGCTAGTA AGTGCTGCAA GCCAAGAACG GCTGCTTGCG AGTGTTTTTC	2460
TTGAGTTTGC ATTAGAGATC TGCCTCCTTA AATACGACTT GACCATTTTC AAAACAATCC	2520
AAACGAGCAA GTGATAGGAC AGGGTAGCCT GCTTTTTCOA GCAAATCACG ACCATCTTGG	2580
AAGGATTTCT CAATCACGAT ACCGATAGCT TGGACTGTGG CACCGGCCCTG TTCGATGATT	2640
TGAATCAAGC CTTTAGCAGC TTGGCCATTA GCAAGGAAAT CGTCGATAAT CAAAACCTTG	2700
TCCTCTGGTG AGAGGAATTT TTCAGCGATA GAAACGGTGC TGGTACCTG CTTGGTAAAG	2760
GAGTAGACTT GAGCAGTTAA GATGCCTTCG TTCATGGTGA GTTCTTAGC TTTTTTGGCG	2820
AAAATCATGG GAACGTTTAA GGCTTCAGCT GTAAAAACGG CTGGGGCAAT ACCCGACGCT	2880
TCAATGGTTA CGACCTTGGT AATGCCAGTA GTAGCAAATT TTTCCGCAA AACCTTACCA	2940

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ATCTCTCGCA	TCAAGCTAAA	GTCAACTTGG	TGGGTAAAA	AGGAATCTAC	CTTGAGGATG	3000
TTATCACCCA	AGATATGCCC	ATCCTTGAGG	ATGCGCTCTT	CTAATAATTT	CATAAGACCT	3060
CCTAAAGTCT	AAAAGTTAAT	TACTTGTTG	TTTAAATATT	TCTATAGTGA	TCCCTTTTGC	3120
TAATACTATA	TATTTGATAA	AACTATTACG	AGCGAAGCGA	GTCTTATCAA	ATATTTCCCG	3180
TTGTAGTGGT	ATCATAGACA	ATAATCTTGT	TATTGTCTAT	GACGGGATTT	TTGAGAGTAA	3240
AATAGTTCGG	GGAACATTTT	TAGCCTAAGC	CTAGAAATGA	AAGAGCTAGG	GGCTCAAAAA	3300
TTAGGGATGA	AATTCCTTGG	ATTCTGAAA	TTATTCACAG	GATAATTTCA	CCTCCCGTCC	3360
GCACTAATTA	AGGGAAATAT	TAAAAAAGA	CCTACTTAAT	CTCTAAGTAA	GTCCCTAAA	3420
TAGACATGGC	AAAAACGGCC	ATATCTCACT	GCTGACTTAC	TTATTGTTAG	GTGTCCGGC	3480
ACCTTG TAGA	AACGTCGTGC	CAATTCACGA	CATAACAAG	TAAAACGATA	TTCAATTTTA	3540
AATAGGCTTG	AGCCAATGTT	TTTATTTTAC	ACTAAATAAC	TTTAGAAATC	AACTATTTTG	3600
TTAGTGT TTT	GGTTTAAAA	ACGAACAAA	AGAAGAGAGG	GTGAACAAA	ACTCCATTGT	3660
AAGCTAACAG	TTATACTAAA	TGAAAATCAA	AGAGCAAACT	AGGAAGCTAT	CCACAACCTC	3720
AAAACACTGT	TTTGAGGTTG	TGGATAGAAT	TGACAGAGCC	AGTATCATAT	ACCTACGGTA	3780
AGGCGACGTT	GACGTGGCTT	GAAGAGATTT	TCGAAGAGTA	TTAGAAGATT	TTTCCATCAT	3840
AAAAGGCATA	CTATCAAGCT	TTTAGACACC	TGACAATATG	CCTTTTCTTA	ACTTTAAAGA	3900
CTTTTCCCAA	TTTTTATTAT	TCTACTCGCT	AAATCTTAAA	AAATAGCCAT	CTGGATCCAA	3960
AACTGCAAAT	TTATGAGGAT	AGATATAGGG	ATCACTGACA	CGAAACTTTC	TTTTGGTCAA	4020
GGGACGATAA	ATAGGATAGT	TTGCCTTCAT	CACTCTTTAA	TAGAGTTTTG	AAACATCCTT	4080
TATGCCAAAG	GAGAGATTGA	CTCCACGACC	AAAGGGATAG	GTCAGTTCAG	CTAGTTGATC	4140
CTTTGT TCCC	TCCTCTAACA	TTAGTTGACA	CTCTTCAAGA	GAAAGAGAAA	GTTTTCTTCT	4200
GGACGTTGGT	ATTCAATCCT	AAAACCCAGT	AAACCACAGT	AGAAGGACCG	GGACTGTTCCG	4260
ATATTCGATA	CAAGCAACTC	GGGAATGACC	GCATTGTAGT	CCATATAGAA	AATCCTTACA	4320
AGTCAATTTT	CAAGACAATC	GGTGATGGT	CTTGGCGAGC	ACCTGAGTCA	ATCATATCAG	4380
ATTTAGTGAC	CTTGTCAGCG	ATACGGTTAC	TTGTGAGCCA	GTAGTCGATT	CTCCAGCCTG	4440
TATTGTTGAT	TTTAGAAGTT	TTGCTGCGTT	GTGCCCACCA	AGTG TAGCGT	TCAGGAACAT	4500
CGCCATGAAC	ATGGCGGAAG	GTGTCTGTAA	ATCCAGTTGC	CAAAAGGTTG	GTAAATCCAG	4560
CACGTTCCCT	GTCAGTAAAT	CCAGGTGAAC	GGCGGTTGCT	AGCAGGATTT	GCAAGGTCGA	4620
TTTCATTGTG	GGCTACGTTG	TAGTCACCGG	TCGCAAGGAC	TGGTTTTTCT	TTGTCTAGTT	4680

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CAGCCAAATA	CTCAGCATAT	TTGGCATCCC	AGACTTGGCG	TTCTTCCAAG	CGTTTGAGAC	4740
CGTCACCAGC	GTTTGGAGTG	TAAACTTGGG	TTACGAAAAA	TGCATCAAAT	TCTAGAGTGA	4800
TGATACGACC	TTCCAAGTCC	ATGGTAGAAG	GGGCACCGAT	TTCTGGGAAG	CTGATAGTAG	4860
GTGTAAGTTC	TTTCTTATAA	AGGAACATGG	TTCCAGCATA	GCCTTTACGG	GCAGGCTCTT	4920
GGGAAGAGCG	CCACGTGTTT	TCGTAGCCTG	GGAAGAGTTC	TTCTAAAATT	TCCACGTGTT	4980
TCTTTGTAGG	TCCTTTGGCA	GAAAGCTTGG	TTTCTTGGAT	AGCAATGATA	TCAGCATTTT	5040
CAGCGACCAA	GGTTTGTAGG	ACTTCTTGGG	ACAATTTGGC	ACGAGCTGAG	TCACTAGTTA	5100
GGGCAGCGTT	TAGGGAATCA	ATATTCCATG	AGATAAGTTT	CATAAAGTTA	CCTTTTTCAT	5160
TCAGATTATA	GATTTTATTA	TACCAAAAAA	AGATCTATTT	CCCCAACGTA	TGGTTTGAAA	5220
AATTACTCTC	TTTCGTTTAT	AATTAAGAAT	GATTTTATGA	AAGGGAGTGA	AAATACATGA	5280
AATTCTACTC	TTATGACTAT	GTACTCAGCC	AAATCGGTCA	GCAAAATGGT	ATCATGGTTG	5340
GCTTTGGGAT	TGTTCTATTA	GCTGTGACAG	TTTTTTTTCG	TTTCAAGGCA	TACCATAATA	5400
AAAAGGGAAG	CGAATTTTCGT	GAGTTGGTCA	TGATTTCAGA	TCTGGCCTTA	TTTAGCTCTG	5460
CTTTTGGTCA	GCATCACGAC	TTATCAAAAC	AATCAAGTTT	CTAACAATAA	ATTTCAAACCT	5520
TCACTTCATT	TCATCGAGGT	TGTTTCCAAA	GATTTGTGAG	TAGACAAGTC	AGAAGTCTAT	5580
GTTAATACTT	CCACAAACAC	AGATGGCGCA	CTTATCAAGG	TGGGAGATCG	CTATTATCGT	5640
GCCCTAAATG	GAAGTGAGCC	AGACAAGTAC	CTGTTAGAGA	AAGTCGAATT	GTATAAGACA	5700
GACGCAATTG	AACTGGTGGA	TGTGAACAAA	TGACACTTAA	TTATATCGAA	ATTTTAATCA	5760
AACTGGTCTT	GACTCTCAAA	TAGCTCAACA	ACAATGTTCA	CTTTGTGAAA	CGTTTGATTG	5820
ATGGTAAGCC	AACTCTCCTT	ATCAAAAATG	GGAATATTGA	CCCAGAAGCC	TGTCGTTTCAG	5880
TTGGTTTGTC	TGCATCGGAT	GTATCCCTCA	AACTTCGTAG	CCAAGGGATT	TTCCAGATGA	5940
AGCAAGTCAA	ACGAGCTGTG	CAAGAGCAAA	ATGGGCAACT	CATCGTTGTG	CAAATGGGAG	6000
ATGAAAATCC	TAAGTATCCA	GTTGTGACTG	ACGGTGTGAT	TCAAGTAGAT	GTCTTGGAAT	6060
CGATTGGTCG	TAGCGAAGAG	TGGTTGCTTG	ATAACCTCAG	TAAACAAGGG	CATGACAATG	6120
TAGCCAATAT	CTTTATTGCT	GAATATGACA	AGGGTGCTGT	TACAGTCGTA	ACTTATGAAT	6180
AAGAAAAACC	TGGGGTCTTG	TACTCTTCGA	AAATCTCTTC	AAACCGCGTC	AACGTCGCCT	6240
TGCCGTATGT	AGGTTACTGA	CTTCGTCAGT	TCTATCTACA	ACCTCAAAGC	AGTGCTTTGA	6300
GCAGCCTGCG	GCTAGTTTCC	TAGTTTGCTC	TTTGATTTTC	ATTGAGTATT	GGCCTCAGGT	6360
TTCCATTTCG	AATCAGAAAG	GGATTTTATG	TCCATTATTC	AAAACTTTTG	GTGGTTTTTC	6420
AAGTTAGAAA	AACGCCGTTA	TCTAGTCGGA	ATTGTGGCCC	TGATCTTGGT	TTCCGTCCTC	6480

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AATCTCATTC CTCCTATGGT TATGGGGCGG GTCATTGATG CCATCACATC GGGGCAATTA	6540
ACCCAGCAGG ACCTCCTTCT TAGCCTATTT TACTTGCTAC TTGCAGCCTT TGGTATGTAC	6600
TATTTGCGCT ATGTGTGGCG TATGTATATC CTTGGGACCT CTTATTGCTT GGGACAGATC	6660
ATGCGGTCTC GCTTGTTTAA GCATTTTACA AAAATGTCGT CAGCCTTTTA TCAAACCTAT	6720
CGGACGGGTG ATCTGATGGC ACACGCAACC AATGATATCA ATGCCTTGAC TCGTTTAGCA	6780
GGTGGCGGTG TCATGTCTGC GGTGGATGCC TCTATCACGG CTCTGGTGAC TTTGTTGACC	6840
ATGCTCTTTA GCATCTCATG GCAGATGACT CTTGTTGCCA TTCTCCCCCT ACCTTTTCATG	6900
GCCTATACGA CTAGTCGCCT AGGGAGAAAG ACTCATAAGG CCTTTGGCGA ATCCCAAGCT	6960
GCTTTTCTTG AACTCAATAA CAAGGTACAG GAGTCCGTAT CAGGTATCAA AGTGACCAAG	7020
TCTTTCGGTT ATCAGGCAGA CGAGTTGAAG TCTTTTCAGG CAGTCAATGA ATTAACCTTC	7080
CAAAAGAACC TGCAAACCAT GAAATATGAT AGTCTCTTTG ACCCTATGGT TCTCTTGTTT	7140
GTGGTTTCGT CCTATGTTTT AACGCTTTTG GTTGGCTCCT TGATGGTTCA GGAAGGGCAG	7200
ATTACAGTTG GGAATCTAGT CACCTTTATC AGCTATTTGG ATATGCTGGT CTGGCCTCTT	7260
CTGGCCATCG GTTTCCTCTT TAATACTACT CAGCGAGGGA AGGTTTCTTA CCAGCGGATT	7320
GAAAATCTTT TGTCTCAGGA ATCTCCTGTA CAAGACCTG AGTTTCTCTT GGATGGTATT	7380
GAAAATGGGC GTTTGGAGTA TGCCATTGAC AGCTTTGCTT TTGAAAATGA GGAAACACTG	7440
ACGGATATTC ACTTTAGTTT GGCAAAAGGG CAAACACTGG GCTTGGTTGG GCAGACAGGC	7500
TCTGGGAAAA CGTCCTTAAT CAAGCTCCTC TTGCGTGAAT ACGATGTGGA TAAGGGTGCC	7560
ATTTATCTAA ACGGTCACGA TATTCGGGAC TATCGTCTGA CAGACCTTCG CAGTCTCATG	7620
GGCTATGTTT CTCAGGACCA GTTCTTTTTT GCGACTTCAA TCCTAGACAA TATCCGCTTT	7680
GGCAATCCTA ACTTGCCCCC TTCAGCGGTC GAGGAAGCTA CTAAGCTAGC CCGGGTTTAC	7740
CAAGATATTG TAGACATGCC TCAAGGATTT GATACGCTGA TTGGTGAAAA AGGAGTCACT	7800
CTTCTGGTG GTCAAAAGCA ACGGTTGGCT ATGAGTCGGG CTATGATTTT AGACCCTGAT	7860
ATCTTGATTT TGGATGATTC CTTATCCGCC GTAGATGCCA AGACAGAGTA TGCGATTATC	7920
GACAACCTCA AGGAGATGCG AAAGGACAAG ACAACCATTA TCACTGCCCC TCGCCTCAGT	7980
GCTGTGTGCC ATGCAGATTT TATTTTAGTT CTACAAAATG GTCAAATTAT CGAACGAGGC	8040
ACGCACGAAG ACTTGCTAGC TTTGGATGGC TGGTATGCCC AAACCTACCA GTCTCAGCAG	8100
TTGGAATGA AAGGAGAAGA AGATGCAGAA TAAACAAGAA CAATGGACTG TATTGAAGCG	8160
CTTGATGTCT TATCTCAAGC CTTATGGACT CCTGACCTTT TTGGCACTCA GTTTTCTCCT	8220

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AGCGACGACG	GTCATTAAAA	GTGTCATACC	CCTCGTGGCT	TCCCACCTTA	TCGACCAGTA	8280
TCTCAGCAAT	CTTAACCAAC	TAGCCGTTAC	CGTTTTGCTG	GTCTACTATG	GTCTCTACAT	8340
CCTACAAACT	GTAGTTCAGT	ATGTCGGCAA	TCTTCTCTTT	GCGCGCGTGT	CTTACAGTAT	8400
TGTTAGGGAT	ATTCGTCGGG	ATGCCCTTGC	CAATATGGAG	AAACTGGGCA	TGTCTTACTT	8460
TGACAAGACG	CCAGCAGGTT	CTATCGTTTC	TCGTTTGACC	AACGATACCG	AGACGATTAG	8520
TGATATGTTT	TCTGGGATTT	TATCCAGCTT	TATCTCAGCA	GTTTTTATCT	TTCTGACAAC	8580
CCTTTATACC	ATGTTGGTGC	TGGATTTTCG	TTTGACGGCT	TTAGTCTTGC	TCTTTCTTCC	8640
TTTGATTTTC	CTTTTGGTCA	ATCTCTATCG	AAAAAAGTCA	GTGAAAATCA	TCGAGAAAAC	8700
CAGAAGTCTC	TTGTCAGATA	TCAATAGTAA	GCTGGCAGAG	AATATCGAGG	GAATCAGGAT	8760
TATTTCAGGCC	TTTAATCAAG	AGAAGCGCCT	GCAGGCAGAA	TTTGATGAAA	TCAACCAAGA	8820
ACACTTGGTC	TACGCCAACC	GTTCTGTAGC	CTTGATGCC	CTCTTTTGA	GACCTGCCAT	8880
GAGTTTGCTG	AAACTTCTAG	GCTATGCAGT	CTTGATGGCC	TACTTTGGCT	ACCGTGGTTT	8940
TTCTATCGGG	ATAACGGTCG	GGACCATGTA	TGCCTTTATC	CAGTACATCA	ACCGCCTTTT	9000
TGACCCCTTG	ATTGAGGTGA	CGCAAACTT	TTCAACTCTG	CAAACGGCTA	TGGTTTCTGC	9060
AGGTCGTGTC	TTTGCCCTGA	TAGACGAGAG	GACCTATGAA	CCTCTTCAAG	AAAATGGGCA	9120
AGCCAAAGTC	CAAGAAGGCA	ATATCCGTTT	TGAACATGTG	TGTTTCTCAT	ATGACGGTAA	9180
ACATCCGATT	CTGGATGACA	TTTCTTTCTC	TGTTAATAAG	GGTGAAACCA	TTGCCTTTGT	9240
AGGTCATACA	GGTTCAGGGA	AATCGTCTAT	TATCAATGTC	CTCATGCGCT	TTTATGAATT	9300
CCAGTCAGGG	AGAGTTCTCT	TGGATGATGT	GGATATCAGG	GATTTTCAGTC	AAGAAGAGCT	9360
GAGAAAAAAC	ATCGGTTTGG	TCTTGCAGGA	ACCCTTCCTC	TATCATGGAA	CTATTAAGTC	9420
CAATATCGCC	ATGTACCAAG	AAACCAGTGA	TGAGCAGGTT	CAGGCTGCGG	CAGCCTTTGT	9480
GGATGCAGAT	TCCTTTTATC	AAGAACTTCC	TCAGGGGTAC	GACTCCCCTG	TTTCCGAGCG	9540
TGGTTCGAGC	TTCTCTACTG	GGCAACGCCA	GCTTCTTGCC	TTTGCTAGAA	CAGTCGCCAG	9600
CCAGCCTAAA	ATCCTGATTT	TGGATGAAGC	GACAGCCAAT	ATTGACTCTG	AAACAGAAAG	9660
CTTGGTCAA	GCTTCTCTGG	CGAAGATGAG	ACAGGGCCGA	ACAACTATTG	CTATCGCTCA	9720
CCGCCTTTCT	ACTATTCAAG	ATGCCAACTG	CATCTATGTC	TTGGATAAGG	GACGCATTAT	9780
CGAGAGTGGA	ACCCATGAGG	AACTCTTGCC	TCTGGGAGGA	ACCTATCACA	AGATGTATAG	9840
TTTGCAGGCA	GGGGCCATGG	CCGATACTCT	TTGAAAATCT	CTTTAAACCA	TGTCAGCTTT	9900
ATCTGCAATC	TCAAAGCTGT	ACTTTGATTT	TCATTGAGTA	CTAGAAGGAA	ATCCTTCAAA	9960
TTACAGATTT	CTTTCACCGC	CTTTTCCATT	TTGTGGTATA	ATGAAAAATG	TTGACAAATA	10020

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GTATAATAAA AACAAAGGAG AACAGCATGC TGAAATGGGA AGACTTGCCT GTGGAAATGA	10080
AATCAAGCGA GGTGAGTCT TACTACCAGC TTGTCTCTAA AAGGAAGGGT TCGCTGATTT	10140
TCAAGCGTTG CTTGGACTGG GTTTTGGCCT TGGTCTTACT GGTCTGACC TCTCCCATCT	10200
TTCTCATCTT GAGCATTTGG ATCAAGTTGG ATAGCAAAGG GCCAGTGATT TACAAGCAAG	10260
AGCGTGTGAC CCAGTACAAC CGTCGGTTCA AGATTGGAA GTTTCGTACC ATGGTGACGG	10320
ATGCGGATAA AAAAGGAAGT CTGGTGACTT CTGCTAACGA TAGCCGCATT ACCAAGGTTG	10380
GAAATTTTCAT CCGACGTGTC CGTTTGGACG AACTGCCTCA GTTGGTCAAT GTCCTTAAAG	10440
GTGAGATGTC CTTTGTCTGGT ACACGACCTG AAGTGCCACG TTATACAGAG CAGTATAGCC	10500
CTGAAATGAT GGCAACCTTG CTCTTGCAAG CAGGGATTAC CTCTCCAGCC AGCATCAACT	10560
ACAAGGATGA GGACACAATT ATCAGTCAAA TGACGGAGAA AGGTCTGTCA GTTGATCAGG	10620
CCTATGTGGA GCATGTTCTT CCTGAAAAGA TGCGCTATAA CCTCGCCTAT CTCCGAGAGT	10680
TTAGTTTCTT TGGGGACATC AAAATCATGT TTCAAACCGT GTTTGAGGTA CTAAAATAAA	10740
GTAGTCATAA GAAATGAGT ACAGATAAAA GGAGCAAATC AATGCCAAAT TACAATATTC	10800
CATTTTCACC GCCTGATATC ACAGAAGCAG AAATTACTGA AGTAGTGGAT ACCCTGCGTT	10860
CTGGTTGGAT CACAACAGGT CCTAAAACAA AAGAACTGGA GCGCCGCTTG TCTCTTTACA	10920
CACAGACACC TAAGACTGTT TGTCTCAACT CTGCGACAGC CGCTCTGGAG TTGATTTTAC	10980
GCGTTTTGGA AGTGGGACCT GGTGATGAAG TCATCGTTCC AGCCATGACC TATACGGCTT	11040
CATGTAGTGT CATTACGCAC GTGGGAGCAA CCCCTGTCTAT GGTGGATATC CAAGCAGATA	11100
CGTTTGAGAT GGAATATGAC CTGCTTGAGC AAGCTATCAC TGAGAAAACCT AAGGTGATTA	11160
TTCCAGTAGA GCTCGCAGG ATTGTTTTCG ATTATGACCG TTTGTTCCAA GTCGTGGAGA	11220
AAAAACGTGA CTTCTTTACC GCTTCAAGCA AGTGGCAAAA GGCCTTTAAC CGTATTGTCA	11280
TTGTCTCTGA TAGTGCCAC GCTTTGGGAT CTATTTATAA AGGACAACCT TCTGGTTCTA	11340
TCGCTGACTT TACTTCCTTC TCATTCCATG CAGTTAAGAA CTTTACAACG GCAGAAGGTG	11400
GAAGTGCAC TTTGAAAGCC AATCCAGTGA TTGATGACGA AGAGATGTAC AAGGAATTCC	11460
AAATCCTTTC CCTTCACGGG CAAACTAAGG ATGCTCTTGC CAAGATGCAA CTGGGGTCAT	11520
GGGAATACGA TATCGTTACA CCAGCCTATA AGTGCAACAT GACCGATATC ATGGCTTCAC	11580
TTGGTTTGGT ACAATTGGAC CGCTATCCAA GTTTGTTGCA ACGCCGTAAG GACATTGTGG	11640
ACCGCTATGA TAGTGGTTTT GCAGGTTCTC GCATCCATCC TTTGGCACAC AAGACTGAAA	11700
CTGTCTGAATC TTCACGCCAC CTCTACATCA CCCGTGTAGA AGGAGCAAGC CTAGAAGAAC	11760

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GCAACCTCAT CATCCAAGAA TTGGCTAAAG CAGGAATTGC AAGTAATGTT CACTACAAAC	11820
CGCTTCCTCT CTTGACAGCC TATAAGAATC TTGGATTTGA TATGACGAAC TATCCTAAGG	11880
CCTATGCCTT CTTTGAGAAT GAAATTACCC TCCCTCTTCA TACTAAATTA AGCGATGAAG	11940
AAGTAGACTA TATCATTGAG ACTTTCAAAA CAGTTTCTGA AAAAGTGCTA ACTTTATCAA	12000
AAAAATGACA AACTACAGTC AAGCGAAAGT GATCCTGCCC CTAAAAAGTC TAATTGAGTG	12060
TAAAAACTGT TGTTTTCAAT TGATAATAGT TTACACCTGT AGTTGAGGCC CCTTCTCCT	12120
CAGAGAGAGA ATTTTATAG GATTTTCCTT TCTTGTGGGA GTCCCGTGGT TTGAAATAAG	12180
ATGTGAGCAA TTTAGTGTAG CATTTAGAAT CCTTACTAGA CATCATTTAG AAAATCTAGT	12240
GTCTTGTCT AGTTTCAAT TCACCTATT TTTTGAAAGA CGTGAGTTT CATGAGTGAG	12300
ATTGTGAAA CTCGCGTCTT TTTTGT TTTT CAGAATATTG TTCAAATTT TGTGCCTGTC	12360
TTTCATGTC TAGTCATTCT TTTGCATGAT AGAATTTATA GCATGTTGAT ATTATAATAA	12420
TACAAATATT CTATATGTTT AGTGATGCTT GCTATACATT ATTAGATCTC CTGCGAGACA	12480
ATCTATAAAA CACTTGTCTA CGATTACCTA TATGCCCTAT TCCAGTATTT TAGAAGCACT	12540
GCATCTATTT TTATCGAGGT TAAATCTAGC TTTTATAGAA GGTCTATTTA AGAAATATAT	12600
TGTAGTGT TTTT TAGTTTCAAT CCGCCATATG AGCGATATTC AGGTAAATAT CCCTGGCGAA	12660
TGCTTGTATG ACAAGGTATT TGTCTTTTCA TTTATAATTT ACAACATATC AACAAATTTA	12720
AATATAGTAA ATGGGATATT TTATATTCAA GCTAAGAAAG ATAGCATCAC TTTTGAATGG	12780
AAGGCTAAAG AGCAAAC TAGAAGTTGGCC ATAGATAGCT CAAAACCTG CTTTGAGGTT	12840
GTAGATATAG TAAAAATGAAA TGAGAATAGG ACAAATTGAT CGGGACAGTC AAATCGATTT	12900
CTAACAATGT TTTAGAAGTA GAGGTGTA TTTT TAGTTT CAGTCTACTA TAGAACTGAC	12960
CAAGTCAGTA ACCTAGACTT AGGGCAAGGC GGCCTGACC TAGTTTGAAG AGATTTCCGA	13020
AGAGTATAAA TTTTAATATT TTCTTGTGTT ATTCCTTGAC AATTCAATTT GGAAAATATA	13080
TGATAAAGAT AATGACAGCG GTGTCATTCT ATCTATTTTA AGAAAAGTAA TAATCAATTG	13140
TTAAAAATAG TAAAAAATT GGAGTTCTG ATGAAATATT TTGTCCG	13188

(2) INFORMATION FOR SEQ ID NO: 71:

- (i) SEQUENCE CHARACTERISTICS:
  - (A) LENGTH: 32768 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 71:



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AACGAGTGCA TCAGTCTCAG CAAGCACCAG TGGGTCCGCC TCAGCAAGCA CCAGCGCGTC	60
TGAATCCGCA TCAACCAGTG CCTCAGCTTC AGCAAGTACC TCAGCATCTG AATCAGCATC	120
AACAAGTGCA TCGGCTTCAG CAAGCACAAG TGCTTCAGCC TCAGCAAGTA TCTCAGCGTC	180
TGAATCCGCA TCAACGAGTG CGTCCGCTTC AGCAAGTACT AGCGCCTCAG CATCAGCGTC	240
AACAAGTGCT TCGGCTTCAG CGTCAACGAG TGGTCTGAG TCAGCATCAA CGAGTACGTC	300
AGCCTCAGCA AGCACATCAG CTTCTGAATC TGCATCAACC AGTGCGTCAG CCTCAGCATC	360
GACAAGCGCC TCAGCTTCAG CAAGTACCAG TGGTTCAGCC TCAGCAAGTA CCAGTGCTTC	420
AGCCTCAGCG TCGACAAGTG CGTCGGCCTC AACGAGTGCA TCTGAATCGG CATCAACCAG	480
TGGTTCAGCC TCAGCAAGTA CTAGCGCCTC AGCCTCAGCA TCAACGAGTG CGTCCGCTTC	540
AGCAAGTACT AGTGATCAG CATCAGCATC AACGAGTGCA TCGGCTTCAG CAAGTACCAG	600
CGCCTCAGCT TCAGCAAGCA CCAGTGCGTC AGCCTCAGCA AGTACCAGCG CCTCAGCCTC	660
AGCAAGCACC AGTGCCCTCAG CTTTCAGCAAG TACCAGTGCG TCAGCCTCAG CGTCGACAAG	720
TGGTTCGGCT TCAGCAAGTA CCTCAGCGTC TGAATCAGCA TCAACGAGTG CATCAGCTTC	780
AGCATCAACA AGTGCTTCAG CTTTCAGCAAG TATCTCAGCG TCTGAATCGG CATCAACGAG	840
TGGTCCGCT TCAGCAAGTA CTAGCGCCTC AGCATCAGCG TCAACAAGTG CTTCCGCTTC	900
AGCGTCAACG AGTGCGCTG AGTCAGCATC AACGAGTACG TCAGCCTCAG CAAGCACATC	960
AGCTTCTGAA TCTGCATCAA CCAGTGCGTC AGCCTCAGCA TCGACAAGCG CCTCAGCTTC	1020
AGCAAGTACC AGTGCGTCAG CCTCAGCAAG TACCAGTGCT TCAGCCTCAG CGTCGACAAG	1080
TGGTTCGGCC TCAACCAGTG CATCTGAATC GGCATCAACC AGTGCGTCAG CCTCAGCAAG	1140
TACTAGCGCC TCAGCCTCAG CATCAACGAG TGGTCCGCT TCAGCAAGTA CTAGTGATC	1200
AGCATCAGCA TCAACGAGTG CATCGGCTTC AGCAAGTACC AGCGCCTCAG CTTTCAGCAAG	1260
CACCAGTGCG TCAGnCTCAG CAAGTACCAG CGCCTCAGCC TCAGCAAGCA CCAGTGCCCTC	1320
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TACCTCAGCG TCTGAATCAG CATCAACGAG TGCATCAGCT TCAGCATCAA CAAGTGCTTC	1440
AGCTTCAGCA AGTACCAGTG CGTCGGCTTC AGCATCAACG AGTGCTTCAG TCTCAGCGTC	1500
AACCAGTGCC TCTGAATCAG CATCAACAAG TGCCTCGGCT TCAGCAAGCA CCAGTGCGTC	1560
GGCTTCAGCA AGTACTAGTG CATCGGCTTC AGCATCGACA AGTGCGTCTG AATCGGCATC	1620
AACGAGTGCT TCGGCTTCAG CATCAACGAG TGGTTCAGCC TCAGCAAGCA CATCAGCTTC	1680
TGAATCTGCA TCAACCAGTG CGTCCGCTTC AGCGTCAACC AGTGCGTCGG CTTTCAGCGTC	1740

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GACAAGTGCT	TCGGCTTCAG	CATCAACGAG	TGCGTCGGCC	TCAGCAAGCG	CAAGTACCTC	1800
AGCGTCAGct	TCCGCCCTCAA	CCAGTGCGTC	GGCTTCAGCA	AGCACAAAGTG	CGTCAGCCTC	1860
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	1920
TACGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	1980
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAAGTGCT	TCAGCCTCAG	CGTCGACAAG	2040
TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	2100
TACTAGTGCA	TCAGCTTCAG	CATCAACGAG	TGCATCGGCT	TCAGCATCAA	CCAGTGCCCTC	2160
GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	2220
AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	2280
TGAATCAGCG	TCAACCAGTG	CTTCGGCTTC	AGCAAGTACC	AGTGCTTCAG	CTTCAGCATC	2340
AACCAGCGCC	TCGGCCTCAG	CAAGCACCTC	AGCTTCTGAA	TCGGCCCTCAA	CCAGCGCCTC	2400
GGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGCGCCTCAG	CCTCAGCATC	2460
AACGAGTGCT	TCGGCTTCAG	CAAGCACAAG	CGCCTCGGGT	TCAGCATCAA	CGAGTACGTC	2520
AGCTTCAGCG	TCAACCAGTG	CTTCAGCCTC	AGCATCAACA	AGTGCGTCAG	CCTCAGCAAG	2580
TATCTCAGCG	TCTGAATCGG	CATCAACGAG	TGCGTCTGAG	TCAGCATCAA	CGAGTACGTC	2640
AGCCTCAGCA	AGCACCTCAG	CTTCTGAATC	GGCCTCAACC	AGTGCGTCAG	CCTCAGCATC	2700
GACAAGCGCC	TCAGCTTCAG	CAAGTACCAG	TGCTTCAGCC	TCAGCGTCGA	CAAGTGCGTC	2760
GGCCTCAACC	AGTGCACTCTG	AATCGGCATC	AACCAGTGCG	TCAGCCTCAG	CAAGTACTAG	2820
TGCATCGGCT	TCAGCATCAA	CCAGTGCCTC	GGCTTCAGCG	TCAACCAGTG	CGTCAGCTTC	2880
AGCAAGTACC	AGTGCTTCAG	TCTCAGCATC	AACAAGTGCT	TCAGCCTCAG	CATCGACAAG	2940
TGCCTCGGCT	TCAGCAAGCA	CATCAGCATC	TGAATCAGCG	TCGACAAGCG	CCTCAGCTTC	3000
AGCAAGTACC	AGTGCGTCAG	CCTCAGCGTC	GACAAGTGCG	TCAGCCTCAG	CAAGTACTAG	3060
TGCATCAGCT	TCAGCATCAA	CGAGTGCATC	GGCTTCGGCG	TCAACCAGTG	CATCAGAGTC	3120
AGCAAGTACC	AGTGCGTCag	CTTCCGCATC	AACAAGTGCC	TCGGCTTCAG	CAAGCACCAG	3180
TGCGTCGGCT	TCAGCAAGTA	CTAGCGCCTC	AGCCTCAGCC	TCAACCAGTG	CGTCAGCCTC	3240
AGCAAGTATC	TCAGCGTCTG	AATCGGCATC	AACGAGTGCG	TCCGCTTCAG	CAAGTACTAG	3300
CGCCTCAGCC	TCAGCGTCAA	CAAGTGCATC	GGCTTCAGCG	TCAACGAGTG	CGTCTGAATC	3360
GGCATCAACG	AGTGCGTCCG	CTTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CGTCAACAAG	3420
TGCATCGGCT	TCAGCATCAA	CGAGTGCGTC	CGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	3480
AGCGTCAACA	AGTGCATCGG	CTTCAGCGTC	AACGAGTGCG	TCTGAGTCAG	CATCAACGAG	3540

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TGCGTCAGCC	TCAGCAAGCA	CATCAGCTTC	TGAATCTGCA	TCAACCAGTG	CGTCAGCCTC	3600
AGCATCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	3660
TGCGTCGGCT	TCAGCAAGTA	CCAGTGCGTC	AGCCTCAGCA	AGTACCAGTG	CGTCAGCCTC	3720
AGCGTCGACA	AGTGCGTCGG	CCTCAACCAG	TGCATCTGAA	TCGGCATCAA	CCAGTGCGTC	3780
AGCCTCAGCA	AGTACTAGTG	CATCAGCTTC	AGCATCAACG	AGTGCATCGG	CTTCAGCATC	3840
AACCAGTGCA	TCAGAGTCAG	CAAGTACCAG	TGCGTCAGCT	TCCGCATCAA	CAAGTGCCTC	3900
GGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	AGCGTCAACA	AGTGCTTCAG	CTTCCGCGTC	3960
AACCAGCGCC	TCGGCCTCAG	CAAGTATCTC	AGCGTCTGAA	TCGGCATCAA	CAAGTGCCTC	4020
GGCTTCAGCA	TCAACGAGTG	CATCAGTCTC	AGCAAGCACC	AGTGCGTCGG	CCTCAGCAAG	4080
CACCAGCGCG	TCTGAATCCG	CATCAACCAG	TGCCTCAGCT	TCAGCAAGTA	CCTCAGCATC	4140
TGAATCAGCA	TCAACAAGTG	CCTCGGCTTC	AGCAAGCACA	AGTGCTTCAG	CCTCAGCAAG	4200
TATCTCAGCG	TCTGAATCCG	CATCAACGAG	TGCGTCCGCT	TCAGCAAGTA	CTAGCGCCTC	4260
AGCATCAGCG	TCAACAAGTG	CTTCGGCTTC	AGCGTCAACG	AGTGCGTCTG	AGTCAGCATC	4320
AACGAGTACG	TCAGCCTCAG	CAAGCACATC	AGCTTCTGAA	TCTGCATCAA	CCAGTGCGTC	4380
AGCCTCAGCA	TCGACAAGCG	CCTCAGCTTC	AGCAAGTACC	AGTGCGTCAG	CCTCAGCAAG	4440
TACCAGTGCT	TCAGCCTCAG	CGTCGACAAG	TGCGTCGGCC	TCAACCAGTG	CATCTGAATC	4500
GGCATCAACC	AGTGCGTCAG	CCTCAGCAAG	TACTAGCGCC	TCAGCCTCAG	CATCAACGAG	4560
TGCGTCCGCT	TCAGCAAGTA	CTAGTGCAATC	AGCTTCAGCA	AGTACTAGCG	CCTCAGCCTC	4620
AGCGTCGACA	AGCGCCTCAG	CTTCAGCAAG	TACCAGTGCG	TCAGCCTCAG	CGTCGACAAG	4680
TGCGTCGGCT	TCAGCAAGTA	CCTCAGCGTC	TGAATCAGCA	TCAACAAGTG	CGTCGGCTTC	4740
AGCATCAACG	AGTGCATCAG	CTTCAGCATC	AACAAGTGCT	TCAGCTTCAG	CAAGTACCAG	4800
TGCGTCGGCT	TCAGCATCAA	CGAGTGCTTC	AGTCTCAGCG	TCAACCAGTG	CCTCTGAATC	4860
CGCATCAACA	AGTGCCTCGG	CTTCAGCAAG	CACCAGTGCT	TCGGCTTCAG	CGTCAACGAG	4920
TGCGTCTGAG	TCAGCATCAA	CGAGTGCGTC	AGCCTCAGCA	AGCACATCAG	CTTCTGAATC	4980
TGCATCAACC	AGTGCGTCAG	CTTCCGCATC	AACAAGCGCC	TCGGCCTCAG	CAAGTACAAG	5040
TGCTTCAGCC	TCAGCATCAA	CCAGTGCAATC	AGCTTCAGCC	TCAACAAGTG	CTTCAGCCTC	5100
AGCGTCAACC	AGTGCCTCGG	CTTCAGCAAG	TACCAGTGCG	TCAGCTTCAG	CAAGCACAAG	5160
TGCGTCAGCT	TCAGCATCAA	CCAGTGCTTC	GGCTTCGGCA	TCAACAAGTG	CCTCAGCATC	5220
AGCATCAACG	AGTGCGTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCATCAG	CATCAACCAG	5280

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TGCATCAGCC	TCAGCAAGTA	TCTCAGCGTC	TGAATCGGCA	TCAACGAGTG	CATCAGCATC	5340
AGCATCAACG	AGTGCATCGG	CTTCAGCGTC	AACCAGTGCA	TCAGTCTCAG	CAAGCACCAG	5400
TGCGTCGGCT	TCAGCATCAA	CGAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5460
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCGGCTTCAG	CAAGCACCAG	5520
TGCGTCGGCT	TCAGCATCAA	CCAGTGCCTC	AGCCTCAGCA	AGTATCTCAG	CGTCTGAATC	5580
GGCATCAACG	AGTGCCTCAG	CCTCAGCAAG	TACTAGTGCA	TCAGCmTCAG	CATCAACGAG	5640
TGCATCGGCT	TCAGCAAGTA	CCAGCGCCTC	AGCTTCAGCA	AGCACCAGTG	CGTCAGCCTC	5700
AGCAAGTACC	AGCGCCTCAG	CCTCAGCAAG	CACCAGTGCC	TCAGCTTCAG	CAAGTACCAG	5760
TGCGTCAGcT	CAGCATCAAC	AAGTGCTTCA	GCTTCGGCCT	CAACAAGTGC	GTCAGCTTCA	5820
GCATCAACGA	GTGCGTCGGC	TTCAGCAAGC	ACCAGTGCCT	CGGCCTCAGC	AAGCACCAGT	5880
GCTTCAGCTT	CAGCATCAAC	AAGTGCGTCA	GCTTCAGCAA	GTACATCAGT	TTCAAATTCA	5940
GCAAACCATT	CGAACTCACA	AGTTGGAAAT	ACTTCTGGAT	CGACAGGTAA	ATCCCCAAAA	6000
GAATTGCCTA	ATACAGGTAC	TGAGTCGTCA	ATTGGATCTG	TGTTACTTGG	AGTTCTAGCA	6060
GCTGTACAG	GTATTGGATT	GGTTGCGAAA	CGCCGTAAAC	GTGATGAAGA	AGAGTAAGAC	6120
AACCTGTAAA	GTTAGGCTAA	ACTAACTCGC	GCACATAAAT	CAAGGAGAAA	ATTGCTAGTG	6180
GATGATAAAA	TAACAGTCAT	TGTACCAGTA	TACAATGTGG	AAAACATATCT	GAGGAAGTGC	6240
CTAGATAGTA	TTATTACTCA	AACATATAAA	AATATTGAGA	TTGTTGTCGT	TAATGATGGT	6300
TCTACGGATG	CTTCAGGTGA	AATTTGTAAA	GAATTTTCAG	AAATGGATCA	CCGAATTCTC	6360
TATATAGAAC	AAGAAAATGC	TGGTCTTTCT	GCCGCACGAA	ACACCGGTCT	GAATAATATG	6420
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GACATAGGTA	AATTAGGAGA	AGATGGTTAC	CTCAATCAAA	AGGTATATTT	ATTATCAGAA	6780
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AGAGTTTGGA	CAGAAAAGTG	GATGCACGCT	TTAGTTGATG	CTATGTCTGA	ACGTATTACG	6900
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GCCATTGTCC	TCGCAGCAAA	CTATGGCTAT	GTAGACCAAG	TTTAAACGAC	AATCAAGTCT	7140
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GTAACCTCTG	AGCAAATTC	ATGTTATAAA	TCGGATATTA	GTTACACAGT	CTTTTTACGC	7320
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GTAACGAAAA	ATCTGGATGA	CTTGTTTGCT	ACAGACTTAC	AAGATTATCC	TTTGGCTGCT	7440
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TTGGTAAACA	ATGCTTTTTG	GAAGAAAGAG	AATATGACCC	AAAAATTAAT	TGATGTAACC	7560
AATGAATGGC	ATGATAAGGT	GGATCAGGCA	GATCAGAGCA	TCTTGAATAT	GCTTTTTGAA	7620
CATAAATGGT	TGGAATTGGA	CTTTGATTAT	AATCATATTG	TCATTCTATA	ACAGTTTGCT	7680
GATTATCAAT	TGCCTGAGGG	TCAGGATTAT	CCTGCTATTA	TTCACATCT	TTCTCATCGG	7740
AAACCGTGA	AAGATTTGGC	GGCCCAAACC	TATCGTGAAG	TTGGTGGTA	CTATCATGGG	7800
CTTGAATGGA	CAGAATTGGG	ACAAAACCAT	CATTTACATC	CATTACAAAG	ATCTCACATC	7860
TATCCAATAA	AGGAACCTTT	CACCTGTCTA	ATCTATACTG	CCTCAGACCA	TATTGAACAA	7920
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CACTATTTGG	TAGATGTCGA	TAATGAATTG	GTAGAAACCA	GTCAAGTACT	TTTAGATATT	8100
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TCTATAGTTT	TTAATGCAGA	TAATGATTAT	GTAGATAAAT	TAGAACTGC	AATTAAATCT	8640
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TGGTTTTTGA	TGATGAATAA	GCGATTGAAG	ACTATACAAT	CTGAAATCGT	TAATGTAAAG	8760
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GACATCATTG TTACAGGAAG TTTAGACTAT TTATTTGATA TAGAACTAGA TGGTTATGCC	8940
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CACATAGAAG GAAATCATAA ATGGTATGAG ATTTCTGAGT TGAAAAATGG AGATTACCT	9240
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AAGAAAAGAT AGCTATTTTA GCAAGTTCAG ACTATGACTT GACCAATCAT ATTTTGATTT	10560
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TGCTTTATCC	ATGATGTTGT	TCCCCTCATG	TTTGATAGTA	ACTATTATCT	CATGAAAGAT	11040
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CGCCTGATGG	AAGAAGGATT	GACGACTAAG	AAGATTCTTG	TTCAAGGGAT	GTGGGATCAT	11160
CCTCATGATT	TATCCTTATA	CACCCCTGCT	TTTAAAAAAG	AACTTTTTTTT	TGCTGGAAGT	11220
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AATGAGGGAG	AAAGTAACCA	ATACTATACC	TTGAATATAT	CTCATAAGGT	GAGTACCTAT	11460
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ATTTGTTTAG	AAGAAAAATC	ACTCGCAGCA	GTTAAAGATA	CAGATGGAAT	TACATTTAAT	12120
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TTGACAGCCA	ATCGTTATCG	TGATTTATGG	TGGGAATTCC	ATGATTTGGA	GTGGAGTCAG	12480
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AAAATAAGG	TTAAATTTTC	TCATAAACAT	ACTGCAGAAC	ATAATTTCTGA	CCAAGATATT	14100
GAATTTATTG	ATGATGAAAC	CTATAACAGT	CAGATTGTTG	CACGAATATT	AAACTAGACT	14160



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TCGCTTTTGA	TATCACACGT	AAAAGTATGG	ATGATGGACT	CTATGACGGT	ATTTTTCTG	16560
TGGAGAGACC	AGATGATTTA	GTGGATAGAA	TGAAGAATAT	AGAGATAGAG	TAATGAGTGA	16620
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GCATATTCTG	AAGCAAACCT	ATCAAAATAT	AGAAATTATT	TTAGTTGATG	ACGGTTCTAC	16740
GGATAATTCT	GGGGAAATTT	GTGATGCTTT	TATGATGCAA	GATAATCGTG	TGCGAGTATT	16800
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GGGAGAGTAC	ATCACGATTG	TTGATTTCAGA	TGATATCGTA	AAAGAAAATA	TGATTGAAAC	16920
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TGACGAAAGT	GACGGGAATT	TTTATTTTTA	TGTAACAGGG	CAAGATTTTT	GCGTCGAAGA	17040
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AACGGAATTT	GATCTTTCCT	GGGCAAGAGA	TATTGTTGAA	GTGTTTCTTA	AGAAAATATC	17340
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AAGATTTATT	CGTCAATAGC	AGTAAAAAAA	GGACTATTTA	CCTCATTTCT	ACTGTTTATC	17640
TATGTATTGG	GAAGTCGTAT	TATCTCCCTT	TTGTTGACC	TAAATACFAA	AGATTTTTTA	17700

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TTATCAATTT TTTCTGTTGG ATTATCCCCT TGGATGTCCG CCATGATTTT ATGGCAGATG	17820
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GAGGGAACCT	CCGGCAATAC	CTGAAGCATC	ACAGGATGAG	ATAGCTGCTA	CCACACTGAG	29640
GACAAAGGCT	GTGGCAAAGT	CAACAGGAAT	TCCAAGAGTG	TTAACTGCAG	CAAGGGTCAA	29700
AAGGTTAATG	GTAATCGCTA	CTCCAGCCAT	ATTGATAGTA	GAACCGAGTG	GGATAGAAAC	29760
AGAATAGGTA	TCTGGGTTGA	GTCCAAGGTC	ATGGCAGAGT	TTTATGTTGA	CAGGAATGTT	29820
AGTCGCAGAA	CTACGAGTGA	AAAAGGCTGT	CACACCGCTG	ACACGGAGGC	AGTTCCAAAC	29880
TAGAGGGTAA	GGATTGCGTC	TCATAAAGAA	GAAGGCAATC	AAAGGGTTGA	CCACAGGGGC	29940
AACAAAAAGC	ATAGTCGTTA	CTAATAGAAC	CAATAAAATA	CCGTAGTTGG	CAAGGCTTCC	30000
GACTCCCTTG	TCAGAAATGG	TTTTAAAAAC	AAGACCAAGG	ATTCCAAATG	GAGCCAGATT	30060

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GATGATCCAT	TCGACAATTT	TAGAAGTCAC	GTCAGCGATA	GTTTTTAGCA	ATTCTTGACT	30120
ATTTTTACTG	GCTTCTCTCA	TAGCGATTCC	AAAAATGACT	GCCCAAGATA	AGATTCTAAT	30180
ATAGTTAGCA	GTAAGCAGGG	CGTTGACTGG	GTTGTCAACC	AGTTTGAGCA	AGAGGTTGCT	30240
GAGAACCTGC	CCAATCCCAT	CTGGTGGTGC	AATTTTCAGTA	TTGGCACTAT	TTGGGGTAAT	30300
TTCAATAGGG	ACGATGAAAT	TTGCTAGTAC	AGCTACAAGA	GCAGCGGCGA	AAGTCCCTAT	30360
CATAGGATAT	ACAAGAAAAC	AACAGTTTTC	ATATTGCTAT	CTTGTCCTTT	TTGATGTTGG	30420
GAAAGGGCAT	TGGCAACGAG	AGCAAAGACT	AGGATAGGAG	CAACAGCTTT	TAGACCTCCA	30480
ACGAATAAAT	CCTCGAGTAG	CCCAATCCCT	GAGAGATTAG	GAAGGGTCAG	TCCTAGGATT	30540
CCCCACAAAG	CATACCAATC	AAGATACGCT	TGACAAGGCT	TGCCTTATTC	CAAGCATGAA	30600
TGATTCTTTT	CATAATAATC	TCCTTTTGTG	GTAGTGATTA	TGATTATAGT	ATAAATGATA	30660
GACAAAATCA	AGAATTTTCT	GTCTATTTTT	TGAATATTTA	TGGAGAATGA	GACTGATGAA	30720
AATATGGTAT	AATGAAATAA	AGGAGTTTTA	TATGCAAAAA	TTTATTCAGG	CTTATATTGA	30780
AAAGCTAGAT	GTGACAACCA	TTATCGAGAA	TATTCTAACC	AAGGTCATTT	CTCTTTTACT	30840
GCTTTTAATT	GTATTTTATA	TTGCTAAAAA	AATGCTTCAT	ACCATGGTGC	AGAGAATTGT	30900
CAAACCTTCT	CTAAAAATGT	CTCGTCATGA	TGTTGGACGC	CAAAAAACCA	TCTCACGTTT	30960
ACTAGAAAAT	GTGTTTAATT	ATACGCTATA	TTTCTTTTTA	CTCTACTGCA	TTTTGTGCGAT	31020
TTTAGGTTTG	CCAGTTTCTA	GTTTGTCTGC	TGGAGCTGGT	ATTGCTGGGG	TAGCGATTGG	31080
TATGGGAGCC	CAAGGCTTTC	TGTCTGATGT	CATCAATGGC	TTTTTTCATCC	TCTTTGAACG	31140
TCAACTGGAT	GTGGGAGATG	AGGTCGTTCT	GACAAATGGA	CCGATTACTG	TATCGGGTAA	31200
GGTTGTCACT	GTGGGAATTC	GTACGACACA	GCTTCGTAGC	GAGGAGCAAG	CCCTTCACTT	31260
TGTCCCTAAC	CGAAATATCA	CAGTTGTTAG	CAATTTCTCA	CGCACAGACT	AGACCTGTTA	31320
TTTTAAGTAA	TTTGTGGTAC	AATAGAGGGA	GTTTAATAAG	GAGAAAAGAT	GGTTTTAGAA	31380
AAGCAGTTGG	GCAATGGTTG	TACCTGGATA	GACCTAGACC	TAGGAAAGTT	GAATAAACTA	31440
GAAGACCTTT	CTGAAATTTA	CGGTTTGGAC	AAGGAAACCA	TTGAATACGC	ACTGGATAGA	31500
AACGAGCGCG	CCCACATGGA	CTACCACCGT	GAAAGTGAGA	CGGTTACCTT	TATCTATAAT	31560
GTCTTAGACG	TAAAAAAGGA	CAAGGCCTAC	TATGAGACTT	TTCCCATGAC	CTTTATTGTC	31620
GAGCATCGTC	GCCTGATTAC	CATTAGTAAT	ACCAAGAACG	CCTATGTCAT	TGAACAGATG	31680
ACTCGTTATC	TGGAGAACCA	TGACACGCTT	TCGATTTATA	AGTTTCTCTT	TGCCAGTCTG	31740
GAAATCATCA	GCAATGCCTA	CTATCCTGTC	ATTGAGCAGA	TGGACAAGAG	TAGGGATGAG	31800
GTCAATGACC	TCTTGCGCCA	GCGAACTACC	AAGAAAAACC	TCTTTGTCCT	GTCTGATTTG	31860

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GAGACTGGTA TGGTTTATCT GACGGCAGCT GCCAAACAAA ATCGGATTTT GTTAGAGCAT	31920
ATTCAAGGTC ATGCCCTTGTA TCGTAGTTTT GATGAGATTG AGAGAGAACA GTTTGATGAT	31980
GCCATGATTG AGGCTCATCA GCTGGTATCC ATGACAGACC TAATCTCTCA GATTTTACAG	32040
CAGCTTTCAG CCTCTTACAA CAATATTCTA AACAAATAATC TGAATGACAA TTTGACAACC	32100
TTGACTATCA TTTCAGTCTT GCTAGCTGTT TTGGCAGTCG TGACAGGCTT TTTCGGAATG	32160
AATGTTCCCT TACCTTTAAC AGATGAGCCC CATGCTTGGC TCTATATCAG TTTGGCTAGT	32220
GCAGGTTTGT GGATTGTTTT ATCCTTGTTA CTAAGGAAAA TTGCGAAAAA AAGTTAAGAA	32280
AAGGAGCCAG AATGGCGATT GAAAATTATA TACCAGATTT TGCTGTGGAA GCAGTCTATG	32340
ATCTGACAGT CCCAAGCCTG CAGGCGCAGG GAATAAAGGC TGTTTTGGTC GATTTGGATA	32400
ATACCCTCAT TGCTTGGAAC AACCTTGATG GAACGCCAGA GATGAAGCAA TGGCTACATG	32460
ACCTTCGGGA CGCGGGTATT GGCATTATCG TAGTGTCAAA TAACACCAA AAACGCGTTC	32520
AACGAGCAGT TGAGAAATTT GGGATTGATT ACGTTTACTG GGCCTTGAAG CCCTTCACAT	32580
TTGGTATTGA CCGTGTCTATG AAGGAATTCC ACTATGACAA AAAGGAAGTG GTCATGGTTG	32640
GTGACCAACT CATGACAGAT ATACGAGCAG CCCACCGTGC AGGGATTCCG TCAATTTTAG	32700
TCAAACCCCTT GGTCCAACAT GACTCAATCA AAACGCAGAT TAACCGAACT CGTGAGCGTC	32760
GTGTTATG	32768

(2) INFORMATION FOR SEQ ID NO: 72:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14872 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 72:

CCAGTCACAA AGAAATTGAG CGCGTTCAGc TGAGGATGCA CTATGATGCA AGCTACATTT	60
CATTTGATGG GATATTAAGA AAGGAGATTT TCATGACACT TTTAGATGTA AAACACGTTC	120
AAAAAATTTA TAAACACGT TTTCAGGGCA ACCAAGTAGA AGCCCTCAAG GATATTCACT	180
TTACCGTAGA AAAGGGTGAC TACGTTGCCA TCATGGGTGA GTCTGGTTCT GGTAAATCAA	240
CTCTTCTCAA TATTCTAGCT ATGTTGGATA AACCAAGTCG TGGTCAGGTT TACTTGAATG	300
GAAGTGACAC CGCAACTATT AAAAATTCAC AGGCTTCTAG TTTCCGGCGT GAAAAGCTAG	360
GATTTGTCTT CCAAGACTTT AACTTGCTAG ATACTCTGTC TGTTAAGGAC AATATCTTGC	420

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TTCCGCTTGT	CTTGTCAAGA	AGACCTATAA	CGGAGATGAT	GAAGAAATG	GTGGTGACAG	480
CTGAGAACT	GGGTATTAAC	CAATTGCAAG	AGAAGTACCC	TTACGAGATT	TCTGGTGGTC	540
AGAAACAGCG	TGTAGCAGTA	GCCCCGCGCA	TCATCACAGA	ACCTGAAATT	CTCCTTGCGG	600
ACGAGCCAAC	AGGAGCCCTT	GATTCCAAGT	CATCTGCAGC	CTTACTTGAT	GTCTTTAATG	660
AAATCAATGA	GCGTGGGCAA	ACCATCCTCA	TGGTAACCCA	CTCAACAGCA	GCTGCTAGCA	720
GGGCCAAGCG	TGTTCTCTTT	ATCAAAGACG	GCATTCTTTA	CAACCAAATC	TACCGTGGAG	780
AGAAGACAGA	GCGTCAGATG	TTCCAAGAAA	TCTCTGATAC	CTTGACTGTC	ATGGCAAGCG	840
AGGTGAATTA	GTATGTTTCG	ATTAACCAAT	AAGTTAGCGG	TATCGAACTT	GATTAAAAAC	900
CGCAAATCT	ACTATCCCTT	TGCACTGGCT	GTCTCTTGG	CAGTCACCAT	CACCTATCTC	960
TTTTACTCCC	TAACCTTCAA	TCCAAAGATT	GCGGAAATCC	GTGGAGGAAC	CACCATTCAA	1020
GCAACACTTG	GATTTGGTAT	GTTTGTCGTT	ACCCTTGCGT	CACCATTTATC	GTCTCTATG	1080
CCAATAGTTT	TGTCATGAAA	AACCGTTCCA	AGGAACTGGG	TATATATGGC	ATGTTAGGCT	1140
TGGAGAAGCG	CCATCTAATC	AGTATGACCT	TTAAGGAGTT	AGTGGTATTT	GGGATTCTAA	1200
CTGTTGGAGC	GGGTATCGGT	ATTGGAGCCT	TGTTTGACAA	GTTAATTTTC	GCTTTCCTGC	1260
TCAAACATAA	GAAACTGAAG	GTTGAGCTGG	TTGCTACCTT	CCAAATGAAT	GTTGTCATTG	1320
CAGTACTTGT	TGTCTTTGGA	TTGATTTTCC	TAGGCCTCAT	GTTCTTGAAT	GCTCTTCGAA	1380
TCGCCCCGAT	GAATGCCCTC	CAGCTCTCGC	GTGAGAAAGC	AAGCGGAGAG	AAAAGAGGTC	1440
GCTTCCTACC	TCTCCAAACG	ATTCTTGATT	CCATAAGTTT	AGGGATTGGC	TATTATCTTG	1500
CCCTTACGGT	AACCGATCCT	CTTACAGCCC	TAACAACCTT	CTTCCTAGCT	GTTTTGCTGG	1560
TTATCTTTGG	TACTTATCTA	TTGTTTAATG	CAGGGATTAC	AGTCTTCCTA	CAAATCTTAA	1620
AGAAAAACAA	GAAATACTAT	TACCAACCTA	ATAACCTCAT	ATCTGTTTCC	AACTTGATTT	1680
TCCGTATGAA	GAAAAATGCG	GTGAGACTAG	CAACCATCGC	TATTTTGTC	ACAATGGTTT	1740
TGGTAACCAT	GTCAGCAGCG	ACAAGCATTT	TCAATTCCGC	AGAAAGCTTT	AAAAAAGTTC	1800
TAAATCCTCA	TGATTTTGGG	GTTTCAGGGC	AAAATGTTGA	AAAAGAAGAT	TTGGACAAAC	1860
TCTTGAGCCA	GTTTGCAAGT	GACAAAGGTT	ATAGTGTC	AGAGAAAGAA	GTAATTCGTT	1920
ACAGTAACTT	TGGTATTGCA	AATCAAGAAG	GAACCAAGTT	AACTATTTT	GAAAAAGGAC	1980
AAAACCGTGT	CCAACCCACA	ACAGTTTTC	TGGTATTTGA	CCAAAAAGAT	TATGAAAATA	2040
TGACTGGTCA	AAAAGTGTCT	CTATCAGGAA	ATGAGGTCGG	TCTCTTTGCC	AAAAATGACG	2100
GACTGAAAGG	ACAGAAAGCT	CTAACTCTAA	ATGATCATCA	ATTTTCTGTC	AAAGAAGAAT	2160
TTAATAAAGA	TTTCATTGTG	AACCATGTTC	CAAATAAGTT	TAATATCTTG	ACTACTGATT	2220

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ACAATTACCT	TGTTGTTCCCT	GATTTACAAG	CCTTTTGGGA	TCAATTCCCA	GATTCGGCTA	2280
TCTATAATCA	GTTTTACGGT	GGTATGAATG	TAAATGTCAG	TGAAGAAGAA	CAACTCAAGG	2340
TCGCTGAGGA	GTATGAAAAC	TACCTCAATC	AATTTAATGC	TCAATTAGAC	ACAGAAGGTA	2400
GCTATGTTTA	TGGTAGCAAT	CTAGCAGATG	CTAGTTCTCA	GATGAGTGCC	CTCTTTGGTG	2460
GTGTCTTCTT	TATCGGTATT	TTCTTATCCA	TTATCTTTAT	GGTCGGAAC	GTTCTGGTCA	2520
TCTACTACAA	ACAAATTTCT	GAAGGCTACG	AAGACCGTGA	ACGCTTTATT	ATCTTGCAGA	2580
AAGTCGGTTT	GGACCAAAAG	CAAATCAAGC	AAACCATCAA	CAAACAGGTT	TTAACTGTTT	2640
TCTTCCTTCC	TTTGCTCTTT	GCCTTCATAC	ATCTCGCCTT	TGCCTACCAT	ATGCTTAGCC	2700
TGATTTTAAA	AGTGATTGGT	GTAATGGATA	CGACTATGAT	GTTGATTGTG	ACCTTGTCTA	2760
TCTGCGCTAT	CTTCCTCATC	GCCTATGTGC	TGATTTTCAT	GATTACTTCA	AGAAGTTATC	2820
GCAAGATTGT	GCAAAATGTAA	AAAAGATACC	TCGACTTCAA	AATCGAGGTA	TTTCTTGTAT	2880
TCTAAATGCT	GAAAAGTTGT	CCGAGCAGGA	AGGTAACCTC	CATGGTCAAG	AGACCAATAG	2940
CAAGGTTCCG	AATCATAGCT	GTTTTGGTTG	GGGCTTTTCC	AAGTCTAGCA	CTTGTGTAAC	3000
CAGTGAGAAG	AAGGGCCACA	CCGACAATAA	GGACGGTAGC	AGGGATGCGG	TAATCACTTG	3060
GAAAAATGGT	CACTGACAGC	ATTGGAGGCA	AACCTCTAAG	GAAAAAGGCA	ACGAAGCTAG	3120
AAATGGCAGC	GTGCCAAGGA	TTGGTAAATT	CTTCATACTC	AATCCCATAT	TTTTCCTCTA	3180
CCAGAGCCTT	GAGTGGATTT	TTAAGAAAGA	TCTTATTGGT	CAAGAGTTGG	GCAGAAAGTTT	3240
TGAATTCCTC	ATTTTGGATA	TAAGCAGCAT	AGAGGGATTT	TTTGGCTAGT	TCCCTATCTT	3300
GGTCTAGCAA	GAGTTTTTCT	CGCGAAACGG	CAGCTTCCTC	GGTATCTTTT	GGAGTTGAAA	3360
CGGATACATA	TTCTCCACCA	GCCATTGAAA	AGGCACCAGC	TAAGATAGCC	GTAAAACCTG	3420
ATAAAAAGAT	AATCCAGATA	TTGGTCGTGG	CACTGGCAAC	TCCGATAACC	ACACCAGCAA	3480
TGGAAATAAT	TCCATCGTTA	GCATCAAGAA	CACCCGCACG	CAGGATATTT	AAACGACCTG	3540
CAAAATTTGA	ATCAATTTTC	TGATTTGTTT	CTGACGCTAA	ATTTCAAGTT	CAAGTTAGCC	3600
ATCAAGAAGT	CTTCTCTGGG	TGACTTGTAG	TCCAAGCATT	TTTTAGGATA	GTTGTTAATC	3660
CACTTTTCCA	TGAATGCGAC	TTCTTTGGGA	GTCATTTTCT	TGGTCCCTT	AGGTAACCAT	3720
CTACGAATGA	GCCTGTTGTG	ATTCTCATTA	GTTCCCTTTT	CCCAAGAGGC	ATAGGGATGT	3780
GCATAATAAA	TGTGCTCCTC	AGAAAATACA	TTAGACAAGC	GATTGAATTC	CGTTCCATTA	3840
TCTGCCGTGA	TGGAAAGAAT	CTTGTGTTGT	TTTAAGATGA	GTTTTAGAGC	CTGATTGACC	3900
ACATCAGCAC	TTTATTTTGG	AATCAATCGG	ATGATCTGAT	GTCTACTTTT	TCGATCCGTC	3960

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AAGACAAGCA AGCAGTAGTT TTTCGCTCTC GTAAGTAGAA CTGTATCAAT CTCATAATGC	4020
CCATTCTCCA AGCGAAAATT GATAGCTTCA AGCCGCTGTT CGATGGATTG ACCAGCAGGT	4080
TTAAAGTTGG TGCTGGCCTG TTTCTTAAGC GCTTTTCCTT TTCTAGGGTA AAGCAGATCC	4140
TGTTTGCTTA ACCCCAATTT TCCATGATGA ATCCAATAGT AAATGGTTGA AATTCCCACG	4200
TTAACCCCTT TAGCCATCAC CATCATTTCA GGCGAAAATT TTTGGTTATG ATAGTGGAGA	4260
ATCTTTTCCT TAGTTCCCTT GGTCAAGCTT GATTTCTTGA CCGAGCGCTT GCGATTGTTT	4320
TCATAAGACT GTTGAGCATA GTCGGCAGAA TAAACCTCTT TGAAGCGCCC TTTTCCAAGA	4380
CATTGTCGGA CTGTCCCACG CTTGATTTC A GTGTGGATAG TTTGAGGAAC TTTTCCAAGC	4440
AGAGAGGCAA TTTCTCTATT TGATTTCCTT TCTTTTTC ATCTTTTCGAT TAAGCGACGG	4500
CTATCGATTG TCAAAATGTT GCCTTTTGTA GTATAATGGT TTTGCATCTC TGTGCCCTTC	4560
TTGTGTTTGT GGTGGAACAA CAAGTATAAC ACAGAGGTGT TTTCTTATGC CTACAAGAGC	4620
TATCGGCTAG TTGAACCATC TAATTTTATG GAGGGCTGGG TGGCTAACTT CATTATAGAA	4680
CTTTCATTTA CGAACATATA GTAAAATGAA ACAAGAACAG AACAAATCGA TCAGGACAGT	4740
AAAATCTATT TCTAACAATG TTTTAGAAGC AGAGGTGTAC TATTCTAGTT TCAATCTATT	4800
ATATTTTGTG TTTTATCAA AAAATACTTT ACAAGTTCTT AAAACATGA TATAGTAATA	4860
AAGCTTAGAA AATGAGATGA TGTTTCTAG CAAATATAAA CCCGAGTAAA AAATGCCTAC	4920
GGACAGGCAG GGTGGAATGC CGAAGCGTGG TTGAAAAGCC ACATTATTGA TAGGGTAAAA	4980
AGCCTACTTT TATAAGTTGA TGTTAGGACA CTTGTCCTAA TTCATAAATT TTTAGTGTGG	5040
TGAAAGCACA CGTCATCTTG TGAAACGATC AATAAAGTAC GTAATATTTG CTA TAGAGA	5100
GTTAGGAAAC ATCGGGAACA GACATACTCA ACAGAAACCA AAATAAACAC GTCAGAAGAT	5160
TGCAGAGCAG GTGAAAACCT GCTCTTTTTT CATGAGTCAA CCTTTAGTTC CTTAGTTTTC	5220
ATAAGGTCCT AAAAATATTG AAAGGAGTAT GTTTTGAAAG AGTTAGATCA AAACCAAGCC	5280
CCAATTTATG AGGCCTTGGT GAAGTTACGC AAGAAAAGGA TTGTTCCCTT TGATGTCCA	5340
GGTCACAAGC GTGGACGGGG AAATCCAGAA CTTGTCGAAC TCTTAGGAGA AAAATGTGTA	5400
GGCATTGATG TCAATTCGAT GAAACCTTTG GATAATTTAG GCCATCCTAT TTCGATTATT	5460
CGTGATGCAG AGGAGCTGGC TGCAGATGCT TTTGGAGCTA GCCATGCCTT TCTAATGATT	5520
GGTGGAACAA CTTCATCGGT GCAGACTATG ATCTGGCAA CCTGCAAGGC AGGAGATAAG	5580
ATTATTTCTG CACGAAATGT CCATAAATCT GCTATCAATG CGTTGGTTCT ATGTGGTGCC	5640
ATTCCCATCT ATATCGAGAT GAGTGTAGAT CCTAAGATTG GTATCGCTTT AGGTCTTGAA	5700
AATGACCGAG TAGCACAGGC CATAAAGGAC CATCCAGATG CTAAGGCTAT CCTAATCAAC	5760

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AATCCTACTT	ACTACGGCAT	CTGTTTCAGAC	CTAAAGGGGT	TGACAGAAAT	GGCTCATGAA	5820
GCTGGCATGA	TGGTTTTAGT	AGATGAAGCC	CACGGAGCGC	ATTTGCATTT	CACTGATAAA	5880
CTTCCAATTT	CTGCTATGGA	TGCAGGGGCT	GATATGGCAG	CAGTTTCCAT	GCATAAGTCT	5940
GGTGGGAGTT	TGACCCAAAG	CTCCATTTTA	CTTATCGGGG	AGCAGATGAA	TTCTGAATAC	6000
GTTTCGTCAGA	TAATTAACCT	GACCCAGTCT	ACATCTGCCT	CTTACTTGTT	GATGGCTAGT	6060
TTGGATATTT	CACGTGCGAA	CTTGGCCCTT	CGTGGTAAAG	AGTCGTTTGA	GAAAGTCATT	6120
GAGCTATCTG	AGTATGCCCG	CCGTGAAATC	AATGCTATCG	GTGGCTACTA	TGCCTACTCA	6180
AAAGAGTTAA	TAGACGGTGT	TTCGGTTTGC	GATTTTGACG	TAAGTAAAGCT	GTCAGTTTAC	6240
ACTCAGGGTA	TTGGCTTAAC	AGGTATCGAG	GTTTATGACC	TCTTGCAGAG	CGAATACGAC	6300
ATTCAGATCG	AGTTTGGTGA	TATCGGCAAT	ATCTTGGCCT	ATATTTCAT	CGGCGACCGC	6360
ATCCAAGACA	TCGAGCGCTT	GGTTGGTGCT	CTGGCTGATA	TTAAGAGACT	CTATTCAAGA	6420
GATGGAAAAG	ATTTGATAGC	AGGAGAATAT	ATTCAGCCCG	AGTTAGTGCT	GTCTCCGCAA	6480
GAAGCCTTCT	ATTCAGAAAG	AAAAAGTTTA	ACTTTGGATG	ATTCTGTGAG	ACAGGTCTGT	6540
GGAGAATTTG	TTATGTGTTA	CCCTCCAGGT	ATTCCTATCT	TGGCTCCTGG	TGAACGCATT	6600
ACACGAGAAA	TTGTCGACTA	TATCCAATTC	GCCAAGGAAC	GTGGTTGCTC	CCTCCAAGGG	6660
ACGGAAGATC	CAGAGGTCAA	TCATATCAAC	GTTATTAAGA	GAAAGACAAA	CTATAAGAAA	6720
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GAGCACGGCA	AAAAGCCCTT	GAATTAGAAG	CGGTCAATCG	CTTAATTTCT	ATCAGCTTAT	6840
CAAATCCTGC	CTCAAGCCTT	TTCTGAGGAT	TAGGGTAGCG	TGTCAAGAGT	TGGTAGGTAT	6900
ATTCTGAATG	CTTTCCAACG	ATTTTATCCA	ACTCAGGAAA	GATGATATCA	AGACAACGAG	6960
TGTATTGTAC	TTTCCAATCA	GACTGTTTTT	TCTTGAGACG	ATGAATATGT	CTAGCCAGTA	7020
TTTTTAGTTC	TACTTGCCGA	TTATCGTGTT	GAAATTGTTT	ACGATTGGGG	TCAGAAAGAA	7080
GTTTAAGAGC	GATGCCATGA	GCGTCTTTCT	TATCCGTTTT	AGTTTTCGCA	AGTGATAATG	7140
ATTTGGCAAA	TTTCTTGATG	AGCAAAGGAT	TGTAGGTGTA	AACTTTATAT	CCTTGTTTCAT	7200
GCAGGAAGTT	CAGTAGATTA	AAGGCATAAT	GTCCGGTATT	TTCAAGAGCG	ATGAGACAGT	7260
CTTGGTTGAG	CTGTCGAAGA	GACAGATCTA	AGAGTTCAAA	ACCAGCTTTA	TTATTTGAAA	7320
AAGTGAGTGG	TTTAAGAACA	GTTTTTCCTG	GAACATTCAA	GGCTGTAACA	TCGTGTTTAT	7380
TTTTAGCGAC	ATCAATGCCC	ACATAAAGCA	TGGGAGTATC	TCCAGATATA	GTATTTCAAG	7440
TCTACTGGGT	TATCCACGAA	CTTTTTCGCT	TGTTACCTTA	GACGAGATAA	AACGTCTATG	7500

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CGTTATCAAA CTCATTACCA ATTGAAACAA AAAACTGTGG TTAGAGCCCT TCGGAAATCG	7560
TCAAGCGATT GGAGGAAATG AACTAATCCA CAGTGGCTTA TTCCAAGTAT ACCACTTGGG	7620
CTTTGGCAGT AGCTAACTGC GCTAAATATA ATATAAGGAG AAATAGATGG ATTTATGGTT	7680
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TGGAAAAAGT GAATGGCAGG ATATCGAAGT CTTGGATACG CCAGCTTTTG GGAAAATACT	7800
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CGTTCACGTT CCCATGGCTG TCCACCCAAA TCCAAAGAAA GTATTGGTTA TTGGGGGTGG	7920
TGACGGCGGT GTTGCCCAAG TATTAACCCT CTATCCTGAA CTGGAGCAAA TTGATATTGT	7980
GGAACCGGAT GAGATGTTGG TCGAGGTCTG TCGTGAGTAT TTCCAGACT TTGCTGCAGG	8040
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ACTCTTTACC AAGGAATCTT ACGGCAATAG TTATCGAGCT CTGAAGGAAG ACGGCATCAT	8220
GATTTACCAG CATGGGAGTC CCTTCTTTGA CGAGGATGAG TCGGCCTGCC GAAGCATGCA	8280
CCGCAAGGTC AATCAAGCCT TTCCAATCAG TCGGGTTTAT CAGGCCATA TTCCAAC TAG	8340
CCCAGCTGGC TATTGGTTGT TTGGATTTGC ATCGAAAAA TACCACCCTG TCAAAGATTT	8400
TGACAAGGAA GGCTGGAAAA AACGCCAGCT TTTACAGAA TACTACACTG CAAACTTACA	8460
CGTGGGAGCC TTTATGTTGC CCAAGTATGT TGAGGACATT TTAGAAGAAG AGGAAGGAAA	8520
AAAATGAGTC GTTTACTAGT TATTGGTTGT GGGGGCGTTG CCAAGTTGC TATTTCAAAG	8580
ATTTGTCAAG ATAGCGAAAC ATTTACAGAG ATTATGATTG CTAGCCGTAC CAAGTCAAAA	8640
TGCGATGACT TGAAAGCGAA GCTAGAAGGC AAAACAAGTA CTAAAATTGA AACTGCAGCA	8700
CTTGATGCTG ACAAGGTTGA AGAAGTGATT GCCCTGATTG AAAGCTACAA ACCAGAAGCT	8760
GTTTTGAATG TAGCTCTGCC TTATCAAGAT TTAACCATTA TGGATGCTTG TTTGGCAACA	8820
GGTGTTCACT ATATCGATAC AGCCAAC TAC GAAGCAGAAG ACACAGAAGA CCCTGAGTGG	8880
CGTGCTATCT ACGAAAAACG TTGTAAGGAA CTTGGTTTTA CAGCCTACTT TGACTACTCA	8940
TGGCAGTGGG CTTATCAAGA GAAATTCAAA GAAGCAGGCT TGAAGTCTCT TCTTGGTTCT	9000
GGTTTTGACC CAGGTGTAAC TAGTGTCTTT TCAGCTTATG CCCTCAAACA CTATTTTGAT	9060
GAAATCCATT ATATCGACAT TTAGACTGT AATGGCGGTG ACCACGGTTA TCCATTTGCA	9120
ACCAACTTTA ATCCAGAAAT TAATCTCCGT GAGGTTTCTG CGCCAGGTTC TTAAGTGGAA	9180
GATGGGAAAT GGGTCGAAGT CGAAGCTATG TCTATCAAGC GTGAGTATGA TTTCCCTCAA	9240
GTGGACAAA AAGATATGTA TCTCCTCAC CATGAAGAAA TCGAATCATT GGCCAAGAAC	9300



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ATTCCAGGTG TCAAACGCAT TCGTTTCTTT ATGACTTTTG GTCAATCTTA CTTGACGCAC	9360
ATGAAATGTC TTGAAAATGT TGGACTCCTT CGTACGGATA CCATTAACCT TAACGGCCAA	9420
GAAATTGTTT CAATTCAATT TTTGAAAGCC TTGCTTCCAG ATCCTGCCAG TCTTGGGCCA	9480
CGTACAGTCG GAAAAACCAA TATTGGATGT ATCTTTACAG GTGTCAAAGA CGGTGTCAAA	9540
AAGACTATCT ATATCTACAA TGTCTGCGAC CATCAGGAAT GTTACGCAGA GGTGTTTCCG	9600
CAAGCTATTT CTTATACGAC AGGAGTTCCA GCCATGATTG GGACAAAATT AGTCATGAAC	9660
GGAACCTTGA AACAAGCTGG AGTGATAAAC CTTGAGGAGT TAGATCCAGA TCCATTTCATG	9720
GAAGCTTTGA ATGAGTATGG TTTGCCATGG GTTGTGGTTG AAAATCCACA AATGGTGGAC	9780
TAATGAAGTT AGAACAAGTA CCAACACCAG CCTATGTTAT TGAAGTGGCC AAGTTAGAAG	9840
CTAATTGCCG CATTCTACAA TATGTACAAG AAGAGGCCGG TTGCAAGGTC TTGCTTGCCC	9900
AGAAGGCATA TTCCCTCTAC AAAACTTATC CCTTGATTAG CCAGTATCTA TCAGGTACGA	9960
CAGCTAGTGG ACTCTATGAG GCCAAATTGG CAAGGGAAGA ATTTCCTGGT GAAGTCCATG	10020
TATTTGCGCC TGCTTTCAAG GATGCAGACT TGGAGGAATT GCTAGAGATA ATGGACCATA	10080
TAGTCTTTAA CTCAGAGAGA CAGTTGCGTA AACACGGTCC GCGTTGTCGA GAGGCTGGTG	10140
TCAGTGTTGG TTTGCGCCTC AACCTCAGT GTTCAACTCA AGGcAGATCA CGCGCTCTAT	10200
GACCCCTGTG CACCAGGTTT TCGCTTTGGA GTTACTATAG ACAAGATTCC GAGTGATTTG	10260
CTAGATTTGG TTGACGGACT TCATTTTCAT ACCCTTTGCG AGCAGGGAGC AGATGATTTA	10320
CAACAACCTT TGAAGCAGT AGAAGAACAG TTTGGTCCCT ACTTACATGA GGTAATAATGG	10380
CTCAATATGG GTGGTGGTCA TCATATTACA AGAGAAGGTT ACGATGTGGA TTTGCTGATT	10440
TCAGAAATCA AGCGTATCCG AAAAATTAC AATCTTGAAA TCTATATCGA GCCTGGTGAA	10500
GCCATTGCGC TTAATGCGGG TTATTTAGCA ACTGAGGTAT TAGATATTGT AGAAAACGGT	10560
ATGGAAATCT TGGTTTTAGA CGCCTCTGCG ACCTGCCATA TGCCTGATGT ACTTGAGATG	10620
CCCTATCGTC CACCTTTGAG AAATGGCTTT GAGTCACAGG AAAAAGCCCA TACCTACAGA	10680
CTTCTTCTA ATACCTGTCT GACGGGCGAT GTGATTGGTG ATTATAGTTT TGAAAATCCA	10740
GTCCAAATCG GAGACAGACT TTATTTTCAA GACATGGCCA TTTATTCTTT TGTCAAAAAT	10800
AATACCTTTA ATGGTATTGG ATTGCCAAGT CTCTATCTCA TGGACGAACA GGGAGACTGT	10860
AGCTTACTCA AAGCTTTTGG CTATCAAGAC TTAAAGGGA GATTATCATG ATGGACAGTC	10920
CAAAAAAATT AGGCTATCAC ATGCCAGCAG AGTACGAACC CCATCATGGT ACCCTCATGA	10980
TATGGCCGAC TCGACCAGGA TCATGGCCTT TTCAAGGAAA GGCTGCTAAA AGAGCATTTA	11040

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CTCAGATTAT	CGAGACCATA	GCAGAAGGGG	AAAGAGTCTA	TCTTTTGGTG	GAGCAGGCCT	11100
ATCTATCTGA	AGCCCAATCC	TATCTTGGAG	ACAAGGTTGT	TTATTTAGAC	ATTCCCACCA	11160
ATGATGCCTG	GGCGCGTGAT	ACTGGCCCAA	CCATTCTCGT	CAATGATAAA	GGTAAGAAAT	11220
TAGCCGTGGA	TTGGGCTTC	AATGCTTGGG	GAGGCACCTA	TGATGGTCTT	TATCAAGATT	11280
ATGAAGAGGA	TGACCAAGTA	GCCAGTCGTT	TTGCTGAGGC	CTTGGAAGG	CCTGTCTATG	11340
ATGCTAAACC	TTTGTACTG	GAAGGAGGCG	CAATCCATAG	CGATGGTCAA	GGAACATATC	11400
TCGTAACCTGA	AAGTTGCTTG	CTTAGTCCTG	GTCGCAATCC	TAACCTGACT	AAAGAGGAGA	11460
TTGAAAACAC	ATTATTAGAA	AGTCTTGGTG	CTGAAAAAGT	TATTTGGCTT	CCTTATGGTA	11520
TTTATCAGGA	TGAAACCAAT	GAACACGTCG	ATAATGTTGC	TGCCTTTGTT	GGTCCTGCTG	11580
AGCTTGTTTT	GGCTTGGACA	GATGACGAAA	ATGATCCCCA	GTATGCCATG	TCAAAAGCAG	11640
ATCTCGAACT	CTTAGAACAG	GAAACAGATG	CAAAGGTTG	TCACCTCACC	ATTCATAAAT	11700
TGCCTATCCC	TGCAGTTCGA	CAAGTTGTGA	CAGAAGAAGA	TTTGCCAGGC	TACATCTATG	11760
AAGAAGGAGA	AGAAAAGCGA	TACGCAGGTG	AACGACTAGC	AGCTTCCTAC	GTAAACTTTT	11820
ATATCGCCAA	CAAGGCTGTC	TTGGTTCAC	AGTTTGAGGA	TGTAAACGAC	CAAGTGGCCT	11880
TAGATATCCT	CAGCAAGTGT	TTCCCAGACC	GTAAAGTTGT	CGGAATACCA	GCCAGAGATA	11940
TTCTCTTAGG	TGGTGGCAAT	ATCCACTGTA	TCACCCAACA	AATTCAGAA	TAGGAGAAAA	12000
AGATGAGAAA	TGTAAGAGTT	GCAACCATTG	AGATGCAATG	CGCTAAGGAT	GTGGCAACAA	12060
ATATCCAAAC	CGCAGAGCGT	TTAGTACGTC	AGGCTGCTGA	GCAAGGAGCC	CAAATTATTC	12120
TCTTGCCCGA	GTGTTTGAA	CATCCCTATT	TCTGTCAGGA	ACGTCAGTAT	GACTACTACC	12180
AGTATGCCCC	ATCTGTAGCG	GAAAATACTG	CCATTCAGCA	TTTTAAGGTG	ATTGCTAAGG	12240
AACTACAAGT	TGTTTTACCA	ATCAGTTTCT	ATGAAAAAGA	TGGTAATGTC	TTGTATAACT	12300
CTATTGCCGT	CATTGATGCA	GATGGGGAAG	TGCTGGGCGT	TTATCGAAAG	ACCCATATAC	12360
CAGATGACCA	TTATTATCAA	GAAAAATTCT	ATTTACAGCC	TGGTAACACT	GGTTTCAAGG	12420
TCTGGAATAC	TCGCTATGCT	AAGATTGGTA	TCGGTATCTG	TTGGGATCAA	TGGTTCCCTG	12480
AAACAGCGCG	CTGTCTTGCA	TTGAATGGTG	CTGAATTGCT	CTTTTATCCT	ACAGCTATCG	12540
GTTCAGAGCC	AATTTTGGAT	ACAGATAGTT	GTGGTCACTG	GCAACGTACT	ATGCAAGGGC	12600
ACGCAGCAGC	GAATATTGTT	CCAGTCATCG	CAGCCAATCG	TTATGGTTTA	GAGGAGGTTA	12660
CTCCTAGTGA	GGAAAATGGC	GGACAGAGCT	CCAGTCTTGA	CTTCTACGGT	TCCTCCTTTA	12720
TGACGGATGA	AACAGGAGCT	ATTCTAGAAC	GAGCTGAAAG	ACAAGAAGAA	GCTGTTCTGT	12780
TAGCTACTTA	TGACCTAGAC	AAGGGAGCAA	GTGAACGCCT	AAACTGGGGC	TTGTTTCGAG	12840

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ATAGAAGACC	AGAAATGTAT	AGACAAATTA	CAGATTAGTG	TGGGAGAAAT	GAGAGATTCA	12900
TTCTGCTAGA	CTAACTTCTT	ATTAGTAACT	ATAAGATACT	ATGGCATCTA	GTAAATCGAT	12960
TTTTATGATT	CGCTATTCTT	GTCTATTGAT	TAGTCCGTAT	TTTAAAATAT	TAGCAAAAAA	13020
GCAAATAGCA	GTAACCTCTG	TCTATTTGCT	TTTCTTTTTT	ATAGAATATA	TTTCTCAATA	13080
GCACGCGCAA	CGCCGTCTTC	TTCGTTGCTT	GAGGTAACGG	CATCCGCAAG	AGATTTGATA	13140
TAATCGCTGG	CATTTCCCAT	TGCAATCCCA	AGCCCTGCAA	ACTGGAGCAT	TTCGATATCG	13200
TTATTAGCAT	CGCCCATGGC	CATAATCTCT	GAGGAATCAA	TCTTCAAAAT	CTCAGCTAGT	13260
CGTGAAAGAG	CAGTAGCCTT	TGTCGTTCCA	AGCGGCATTG	CTTCATAAAT	GACAGGCTGC	13320
GAACGAACTC	CACTGAATCG	TTGGCAAAGC	TCTTCAGCAA	AACGCTGCTC	AAAATCGTCT	13380
GTTTGTTCCT	TTGTTCCTAA	ACACATACCT	TGGAACATCC	GGAACCTTCC	ACTAGTCGCT	13440
TCTTCAAGAG	AAATTTTCAGT	CAGGTCTGAA	AATACTAGTT	TAGCATCATT	TTCAATAACT	13500
TGATTGGGCT	TGTCACCGAG	AACAAAATAA	TGTGACTCGT	CAAAAAGTGT	CAACTGAACA	13560
TCACTCTTTT	CAGCAAGGTC	ATAGAGGTAT	TCGATGTCAG	CTGGACTCAG	TTCTTTCCAG	13620
TCAACTAGAC	TCCAATCACT	GGTCTGGTGA	GTTGAACAAC	CGTTGTTAAC	AATAATATAT	13680
TCGTCTTGGA	GGTCAAGCTC	CAGTTTTTTG	TAGTAGGGGA	GGACACCGAA	AAGGGGGCGA	13740
CCCGTACAGA	GAACCAGTTT	GACACCTTTT	TCAATGGCTT	TGTGAATAGC	AGTAATGTGT	13800
GCTTGTGGGA	TTTCCTTGGC	TTCATTGAGG	AGGGTGCCGT	CCATATCCAA	GGCTAGTAGT	13860
TTAATCATAG	GTCTTCTCT	TTATCTTTGC	TATTATTATA	GCATATTTTG	GAGAAGAAAT	13920
TGATAGAAAG	CTTGAGACTA	ATTGATTTTA	TAGTTTAAGA	TGTTTTGATG	ACAATTCATG	13980
ATTTGAAGAG	GATATTTTCG	AAAGATATGC	TATACTATGT	TTGTCAATGT	TGCAACTAGA	14040
CAAATTAATA	AACCAACTTA	ATATAATAGT	TTTTTTGTAA	GTAGGTATGA	GTAGCAGATT	14100
ACTCAACTAA	TCTGAAGAAT	AATGGAGGAA	ATATATCATG	ATTTTAATGA	CAAAAAATAT	14160
AAATCTAACA	AATGAAGAAT	TAGAGCTGAT	ACAAGGTGGA	GCAGATCCAT	ATGGTAAAAA	14220
TCCTAATGGT	AGGTACGATT	GGGAAATAGA	ACCAGTATTA	ACTCTGCTGG	TTCATGGATT	14280
TTGTCCCAGA	GGCACCTATG	ATTCAGGATA	TATTGGAGGA	GGTAATCATC	TTTGCAAAGG	14340
AAGTGCTGCG	AGATTTTAAG	TAAAATTTAT	TAGGAATATG	AAGAAACAAG	GGGAGAAAAC	14400
AGAGGATTTA	ATATGAAAAA	ACGAGCTATT	CAAATTTTAC	TAGCATTGTC	CTTAATTTTT	14460
TACAAATCAA	CTTGGTTTTG	GAGGCTTTTC	AATTATCTCG	CAAAGCCCTA	TCTACCAGCA	14520
AGTCGTGAAT	TTTTTCAGAT	TCTGCTTTTG	ATGGAGAGCG	GAGTTCTTTT	CTTAGCGGTC	14580

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ATCTATCTAC	TGGTTTTTGC	AGGAAAGAAA	ATTTTTCATT	TCAAGTGGCA	GCTGAGGTAC	14640
TTCATCTACC	TTTACTGGG	CTACATCATT	TCATATATGT	CTGACTTCCT	CTTTTCGTAT	14700
TTCATATCCC	TGTCTTCAAA	TCAGATTTCT	TTGAATGAAA	CGGTAGAAAT	GATGGGGAGA	14760
CAGGAGTTCC	CTTATGTCTT	GCTCATCGTT	TGCTTCATCG	CCCCTATTGC	TGAGGAATTG	14820
ATTTATCGAG	GtGTGCTTAT	GACAACCTGT	TGCAAAACT	CACCTTGGA	CG	14872

(2) INFORMATION FOR SEQ ID NO: 73:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10223 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 73:

CGTGTATCG	GTCTCAAAAC	CAATCTGGTC	GCTATGGTCA	AATCCAGTTG	GAAAATCCAT	60
TCTTCTTGA	GCCATCTGCT	GGATTGCCAT	CATCCTCACC	ACTCTTGGA	TGCAGACCCT	120
TATCGGCATT	TTCTAATACT	CTTCGAAAAT	CTCTTCAAAC	CACGTCAACG	TCGCCTTGCC	180
GTAGGTATAT	GTTACTGACT	TCGTCACTTC	TATCTGCAAC	CTCAAAACGG	TGTTTGAGCT	240
GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	ACGGTGTTTT	GAGCTGACTT	CGTCAGTCGT	300
ATCTACAACC	TCAAAACAGT	GTTTTGAGCT	GACTTCGTCA	GTTCTATCTG	CAACCTCAAA	360
ACAGTGTTTT	GAGCAGCCCG	TGGCTAGTTT	CCTAGTTTGC	TCTTTGATTT	TCATTGAGTA	420
TAACACAAAA	GGTAGCCCAT	CAGCTACCTT	TTTCTTATGC	TTCTCTCAATC	AAGCGAGTAT	480
GTTCTCTCTT	GATACAGCGA	TTCATCACGA	TATCATCACA	TCCACCATCA	CGCAAAATCT	540
CTTTTCGCTT	TAAACTTTCA	AGTCCTAGCT	GTGCCCCAAA	AATCTTGGCA	TCAGCTTTGA	600
GAAAATCACG	CGCCACATCG	GGCAGAAATT	CACTGCGACG	ATAAACATTG	ACAATATCTA	660
CAGGAAAAGG	AATTTTCAGCG	AGGCTAGCAT	AAGCCTTTTC	ACCCAAGATT	TCGCCACCTG	720
CCGCCTTGGG	ATTGACTGGG	ATGATTTTAT	AGCCCCGAGC	CTGCATTTCC	TTTGTTACTC	780
GATTGCTGGT	TGTTTCTTCA	CGGTCAGACA	AACCCACCAC	AGCAAGGGTT	TTACTCGTTG	840
CGAGATACTG	ACGAATCACG	CCATCACTTG	GATTGATAAA	TTCTTGACTC	ATAGAAATCC	900
TCCTTTTICA	TCAGTATAGC	ACATTTTGAA	AAGGTTTGCA	GAATTATACT	ACAAAAAAGG	960
AGGACTAGCC	CCCTTTTAT	TAGCCTCGT	ACCAGGTTGC	CCCTTCATTC	TCATCTGCGA	1020
TAAGAGGAAC	ACTGAGTTGA	ATGGCTTCTT	CCATGGTTTG	TTTCACCAAT	TTTTTCATCT	1080
CTACCAATTC	AGATTTAGGC	ACTTCAAGGA	CGATTTTCATC	GTGCACTTGT	AACAGCATCT	1140

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TAGTCTGATA ACCACCTGCA ACCAAGGCTT TATCCAGCTG AATCATGGCA ATCTTGAGAA	1200
TATCTGCTGC CGAACCCTGG ATAGGTGAGT TGATAGCAGT TCGCTCCGCA AAACCACGAA	1260
TATTGAAGTT GCGCGAATTG ATATCTGGCA ACTCACGGCG ACGCTTAAAG AGGGTCTCTA	1320
CATAGCCCTT ATCACGCGCC TCCCGCACCA CTTTCATCCAT GTAGTTTTTA ATACCTGGAA	1380
AACGTTCAAA GTAGGTATCA ATGTAGGCTT TGGCTTCCTT ACGACTAATT CCCAAATTAT	1440
TAGACAAGCC AAAGTCTGAA ATCCCATAAA CCACTCCAAA GTTAACTGCC TTGGCATTGC	1500
GACGGTCGTT TGCAGTCACA TCATCAGGAC GCTCAATGCC AAAGACCCGC ATGGCTGTCTG	1560
AAGTATGGAT ATCTGCCCCC TCTTGGAAGG CCTTAATCAA GTGCTCATCC TTAGAAATAT	1620
GCGCCAAAAC GCGCAATTCA ATCTGTGAAT AGTCAGAGCT GAGTAGCACA CTATCCTCCC	1680
ACTCTGGCAC AAAAGCCTTC CGAATCAAGC GCCCTGTTC CAATCGGGCA GGAATATTTT	1740
GCAAGTTTGG ATCCACACTA GACAAACGCC CGGTCTGGGT CAAATCCTGC ACATAGCGAG	1800
TATGAATCTT TCCATCAGCC AAAATCCAGT CCTGCAAGCC AATTACATAA GTAGATTGAA	1860
TCTTAGCAAT TTGACGGTAA TCCAGGATTT TCTTAACAAT CGGAGCAATA GGAGCGAGAC	1920
GCTCTAAAAC ATCCACTGCT GTCGAATAAC CTGTCTTGGT TTTCTTAGTG TATTCTAGAG	1980
GAAGTCCCAA TTTCTCAAAG AGAAGCACGC CCAACTGCTT AGGCGAGTTG ACATTAAACT	2040
CCTCACCAGC CAGCTCGTAA ATCTCTTGAG TCAGTTTTTC AATGACAAGC TCATTTTCAG	2100
CCTGCATCTC AAGCAAGGTC TCTTTCTTGA CCATAATCCC AGCAATTTCC ATCTTGGCAA	2160
GGACAAAAGC CAGAGGTGTC TCCATATCAT AAAGAAGCTC TAATTGCCCA TTTTCGCTGA	2220
GTTTTTCAAG TAAAATAGGC TCTGTTTCTA CCAAACAGC AAGTTTACAA GCTAAGTGT	2280
CCAAGAATTT CTCACGTTCA GGAATGGCCT TTTTAACACC CTTACCGTAG AAAGTTTCAT	2340
CATCAACCAA GTAAGTCTGA CCATAAAGAC TAGCGATGGT CGCAATTTCA TTGTCCTCCA	2400
CAGTCGAAAG GAGGTATTTA GCCAAACGGA TGTCAAAGC AGGCGCCTGC AAATCCACAC	2460
CAAAACGTTG CAAAAGAAGT TTAACCTTCT TAAAGTCATA AACTCTCAGA GATGTTTTTT	2520
CTAAGAAATC CTTGAAAATC GGGTCTTGCA ACAGCTCAAG CTTGTCTGTG GCATAGAGCT	2580
TATCCCCACA AGACCAGACA AATCCAACCA AATTATCCGT ATGGTAATTC TCACCAAAAA	2640
GCTCAAAGTG GAAGATAGAC TCTTCACTCA GCATATCTTG ACTGATTTGG TCAACAATAG	2700
TAAAATCCAA ACTCTCAGAC ACATCAGCTG ACGACACATT TAAAGCCTGC TTTAGCTGTT	2760
TGAAGCCCAT CTCATCGTAG AATTTCCCAA GATTTTCAAC ATCTGGACCA CTATAGACCA	2820
AGTCCTCTAA ACCAATCGCA ATCGGTGCCT TGGTATCAAT GGTCGCTAGT GTTTTAGACA	2880

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AAAAGGCCTG TTCCTTGTC	TTGATGAGAT TTTCTTCAT	CTTAGAAGTC TTCATTCCAT	2940
CAATATTTTC ATAAATCCCC	TCAAGCGAAC CATGCTCCAG	CAAGAGCTTA ATACCCGTCT	3000
TTTCACCGAC TTTGGTCACC	CCAGGGATAT TATCCGACTT	ATCACCCATG AGCGCCTTGA	3060
GATCGATAAA CTGAGCTGGT	GTGAGGCCCA TTTCTTCCAT	GAGGTAATCT GCGGTAAAGG	3120
CCTCAAATC AGCCACACCT	TTCTTGGAAT TTTCAACCAC	CGTATGCTCA TCCGTCAGCT	3180
GAATCAAATC CTTGTCCCCA	CTGACAATAG TAATATCAAA	ACCATCCTGC TCTGCTAGCT	3240
TATCCAGCGT CCCAATGATG	TCATCCGCCT CATACTGAGC	CAGATCATAG TGACGAATCC	3300
CCATATGATC CAGCAACTCA	CGAATGAAAG GAAATTGCTC	ACGAAACTCA TCAGGAGTCT	3360
TGGCCCGACC ACCCTTATAG	TCCGCATACA TCTCTGTCCG	GAAGGTCGTC TTTCCCGCAT	3420
CAAAAGCCAC CAAAATATGA	CTCGGCTCAA CCCGCTCCAA	TAAATGACTC AACATCAACT	3480
GAAAACCATA AATCGCATTG	GTATGCAAAC CAGCCACATT	CTTAAAACGG TCCAACGTCT	3540
GATACAGCGC AAAAAACGCC	CGAAAAGCTA CAGAAGACCC	ATCAATCAAT AATAATTTT	3600
TCTTATCCAT ACACCCATTA	TAAAGGAAAG AATCAAAAAA	TACCATTGGG AAGAGCTAGA	3660
GCAAGTATTT TTCAAACCTT	TTCCGAATAA ATAGATAGAG	CCAGAGAATT TAGTAAACCT	3720
AGATTTAAAA ATGTGCTATA	ATATAGTATA TTGAATCTAT	AATAGTACAC CTTGACTGCT	3780
AAAATATTTT TATAAATTAA	TTTGACTTTC CTGATAGAGT	TATTCACATC TTATTTCAAC	3840
TCATATAGA AGGAGGAATA	GGAGGATTCT CAGACATCCG	GGCATCAGCC CAACTAATGA	3900
TTTGATTGCT AAGAAAATAT	TCAGCAATCC AGAAATCACT	TGTCAATTTA TTCGCGATAT	3960
GCTGGACTTG CCAGCAAAAA	ATGTGACCAT TTTGGAGGGA	AGCGATATTC ACGTATTACT	4020
CTCCATGCCT TACTCGGTGC	AGGATTTTTA TACCAGTATA	GACGTCTTGG CGGAGTTGGA	4080
TAACGGTACT CAAGTAATTA	TTGAGATTCA AGTCCATCAT	CAGAATTTT TCATCAATCA	4140
CTGTGCGGCT TACCTGTGCA	GTCAGGTAA TCAAAATCTT	GAAAAAATTC GTCAGCGAGA	4200
AGGTGATACT CACTAGAGCT	ACAAACACAT CGTCCTGTT	TACGCCATTG CTATCGTGGA	4260
TAGTAATTAT TTCTCAGATG	ACCTGGCTTT TCATAGCTTT	AGTATGCGCG AAGACACAAC	4320
AGGTGAGGTA TTGGCGATTA	CCAACAATGG ACAGGAAAAC	CATCTGGTTA AGATGGCATT	4380
CTTGGAATTA AAAAATACAG	AGAAACCAGC AAAGACAAGG	TTGCAAGCC ATGGTTGGAG	4440
TTTTTCGGCA ACAAGCCCTT	TACCCAGCAA CCGCAACGAG	CCATTACCCA AGCAAATCAA	4500
CTGCTGGACT ACAAGAGCTG	GTCCGAGGAG GACAGGAAAA	TGTTTAGTCA ACTACATATG	4560
CGAGAAGAAC AAGTCTTGTT	AGCACAGGAC TATGCCTTGG	AAACTGCTAG GGCTGAAGGC	4620
CTTGAACAAG GACTAGAGCG	TGGGAAAGTT GAAGGAAGGG	CAGAAAGGAA ACTTTTGGCC	4680

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TTCCTAGACA	TAGTACGCCA	AGGTCTTCTG	ACTTCTGAGG	TTGCCAGCCA	GCAATTAGGT	4740
ATGTCAGTAT	CTGAATTTGA	GGCACTGTTG	TAAAATGGCT	CCATAATATC	CATAGTGGGT	4800
AAATCCCCTA	TGGATATTAT	GGAGCCTATT	TTGTGTAGAA	AAAAAGTCCC	ATATGACCTA	4860
TAATGAAAAG	CGACAAAACA	ACTCATTAGA	AAGAATCATA	TGGAACAATT	ACATTTTATC	4920
ACAAAATTAC	TAGACATTAA	AGACCCTAAT	GTCCAGATTT	TAAACATCAT	CAATAAGGAT	4980
ACACACAAGG	AAATCATCGC	CAAACCTGGAC	TACGACGCCC	CATCTTGCCC	TGAGTGCGGA	5040
AACCAATTGA	AGAAATATGA	CTTTCAAAAA	CCTTCTAAAA	TTCTTTATCT	TGAAACGACT	5100
GGTATGCCTA	CAAGAATTCT	CCTTAGAAAAG	CGTCGATTCA	AGTGCTATCA	CTGTTCAAAA	5160
ATGATGGTCG	CTGAAACTTC	TGATGACGTA	CAGTCATATT	TCTTCTCTTT	TTATTATATC	5220
ACAGTTTTAA	ATCTAGCTTT	ACTAGATTCA	CCGCTACTAT	CTATTTATTC	GGAAAAAAGA	5280
CGAAAAAACC	TGAGAATCAT	CTCAGGCTTG	GTCATTAAAT	TTTTTTCTCA	ATATCGAAAA	5340
GTGAGAAAAG	TGGTCGTTTT	TCATGAATAC	GTACGATAGC	ATCCCTAGG	AGATGAGCGA	5400
TTGAAATCTG	CTCAATCTTA	TCAATCAAAC	GCTCTTCTGG	CAGATAGATG	GTATCCAAAA	5460
CAACCAATTT	CTTAATAGCT	GATTTTTGGA	TATTGTCCGT	AGCAGGACCA	GAAAGAACTG	5520
GGTGCGTACA	GCTTGCATAG	ACTTCAACAG	CACCAGCTTC	CGCAAGAGCA	TCTGCCGCAT	5580
GACAAATCGT	TCCAGCGGTA	TCAATCATAT	CATCAATCAA	GATACAAGTC	TTGCCTTCAA	5640
CCTTACCGAT	GATATTCATA	ACTTCACTAG	TATTCATCTT	ATCAACGCTA	CGACGTTTAT	5700
CAATAATAGC	GATAGATGTT	TTCAAAAATT	CTGCCAACTT	ACGAGCACGA	GTCAACCCCTC	5760
CATGGTCCGG	GCTGACAACC	ACATAGTCAG	AACCAACCAT	ACCACGACGC	TCAAAATAAT	5820
CTGCAATCAG	AGGAGCACCC	ATCAAATGAT	CCACAGGAAT	ATCAAAGAAT	CCTTGAATTT	5880
GCGCAGCATG	CAAGTCGATG	GTCAATAAAC	GATCCACTCC	AGCTACTTCA	AGCATATTTG	5940
CGACAAGTTT	TGAAGTGATT	GGCTCACGCG	CTCTCGCCTT	TCTATCCTGA	CGTGCATACC	6000
CATAGTAAGG	CATGACAACA	TTGACAGATT	CTGCACTCGC	ACGCTTCAAA	GCATCTACCA	6060
TAATCAAAAT	TTCAAGCAGA	TTGTCATTTA	CAGGCGAACT	AGTTGATTGT	AAGATAAAGA	6120
CGTGTTTCCC	ACGGATTGAT	TCTTCAATGT	TGACCTGAAT	CTCTCCATCT	GAAAATTGGC	6180
GAACACTTGA	TTTCCCCAAC	TCTATCCCAA	TCTCCTGCGC	CACACGTTCT	GCCAATTCTT	6240
TATTAGAAGA	AAGGGCAAAC	AGCTTTAAAT	CAGAAAAAGA	CATGATTTC	TCCGGTATAT	6300
ATGTATAACT	TGTGCTTTTC	ACAAGATTTT	CCATCTACCA	TTGTAGCGCT	TTTTCACATA	6360
TTTTTCAATC	AAAAATAAAA	GAAGGGCACC	ATATTTGTAC	CCTTGCATCA	TTCTTTTGAA	6420

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AAATATTCTA	GGTCATCAAC	TCATTGTGTT	TCTCAACAAA	GCAATAAGCA	TGATAAAAC	6480
CATAGAGAGC	AATAGCCGTA	ACCACTGGAA	TCGCTAAAGG	CAACTCTGTT	TCCAACCTCA	6540
CAAAAGGAGA	GTTAAACAAG	AAGTGAGTTC	CCAAGGCTAA	ACCTAGAAAA	ATAAGGCCCT	6600
GTTTCTTGCC	AACCTTCTGT	CCTTTATAGG	CTCTGTAAAG	CAAGTAAACA	CCTACTACAG	6660
CTAGACCTGA	AAAAGTCCAG	TGAGAGGCAA	TTCCTGAGAT	GATACGCTCT	AAAATTGCGC	6720
AAATAGTAAA	GTCAAAGCCC	TCTGGCAAAT	CCGTACGAAT	ATAACCAATA	TCCTTAATCA	6780
TTTGGAATCC	CAAACCGGAA	GCAATTCCAA	GTAAAAACAA	AGATTTTAAT	TTTCGCACAG	6840
GAATCAAAGC	CAAAACAAAA	ACAAGTGACA	ATAATTTCAA	GGGTTCTTCT	ACCAAAGGAG	6900
CCGCAATAGC	ACTTTCAAAG	GCATTTAAAA	ATGGACTATC	TGGGAAAAGA	ACCCCCAGTA	6960
AATCATGGAT	ATAAGTATTA	GCAAACTAG	ACAACCAGCC	TGAAAGGAAC	ATCCCTCCCA	7020
ATAAAGACAG	AATCAAAACC	TTCTTTGGCA	ATTCCCATT	TTCCCAATAC	GGAAGAGAAA	7080
ATAAAGAGCC	GGAATCATGT	AAAAGAGAGC	TAGAAAGATA	GAAACTCCCA	TTAGTCCATA	7140
TTCCGCACCT	GACCTCGAAC	CGTCCGTATA	GTAGATGGTT	TCATACGTGA	AACCAATACA	7200
TAGCAATAAA	ATAAAAAATA	ATAAAATATT	GCTTTTCTTC	ATACACTTTC	TTTCTAAATG	7260
AAGTATTTAT	AATTCTACGA	CTGTCTACT	TCCTGTATCA	ACATTGTAAA	TGGCACCAGA	7320
GATAATGACA	TCGTCTGGTA	TTAGGGGAGA	CTCGATAAGC	AGTTGCATAT	CCTCGCGTAC	7380
ACTCTCTTCT	ATATCTTGA	AGGGCAAGAA	GTCTTGCTCT	GACACATCGA	CACCCAATTC	7440
TTCCCTCAAA	TACTCCTGAA	AAGGTTCAAT	TTCAAAGGTC	TGAGCACCAC	AGTCTGTATG	7500
ATGCAATACC	ACAATTCTTC	TTGTCCCAT	TTGTTGCTGG	GAAATAACTA	GAGAACGAAT	7560
CATATCCTCA	GTCACGCGAC	CACCTGCATT	CCGCAAAATA	TGAGCATCCC	CAAGTGCCAA	7620
ACCTAGAGCT	TGCGCAACGT	GCAAACGTGA	GTCCATACAG	GTCACAATGG	CTACTCTGGT	7680
TTTAGGTTTA	AGTGGCAGAT	TTAACTGCCC	ATGTAGGGCA	ACATAAGCCT	GATTGGCTTG	7740
CATAAACTGT	TCAAAATACG	ACACGATTCC	CTCCTTGAAA	ATTTGATAGT	CAAATATTTC	7800
TCCTATCTTA	TCATTTTAA	GAGAATTGT	CACGGATTAT	GCAAAGACCT	TTTTCAAGAC	7860
TTCTGAATC	GTTGTCACGC	CAATGACCTG	AATTTCTCTA	GGCAGAGTGA	TTCTGTCAA	7920
GGAATTCTTA	GGTACATAAA	TCTTAGTAAA	GCCCAGTTTA	GCAGCTTCGT	TGATGCGTTG	7980
CTCAATACGA	TTACGCGGCC	GAATCTCTCC	TGTCAAGCCC	AGTTCTCCGA	CAAAACATTC	8040
CTGAGGATTA	GTTGGCTTGT	CTTTGTAGCT	CGAAGCAATA	GCAACTGCAA	CAGCCAAGTC	8100
AATCGCAGGT	TCATCCAATT	TAACACCACC	AGCAGATTTG	AGATAGGCAT	CCTGATTTTG	8160
CAAGAGAAGC	CCTGCCCGTT	TTTCCAAAAC	AGCCATAATC	AAGCTAGCAC	GGTTAAAATC	8220



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AAGTCCTGTC GTAGTACGCT TGGCATTTC	AAACATGGTC GGTGTTACCA AAGCCTGAAC	8280
CTCCGCCAAA ATCGGACGCG TCCCTTCCAT	GGTTACAACG ATGGAGGAAC CAGTCGCCCC	8340
ATCCAAACGC TCTTCTAGGA AAACCTGACT	CGGATTGAGT ACCTCAACCA AGCCGCCCGA	8400
CTGCATCTCA AAAATCCCAA TCTCATTAGT	GGAACCAAAA CGATTTTTGA CCGCTCTCAA	8460
AATACGAAAG GTGTGGTGAC GCTCCCCTTC	AAAGTAAAGC ACCGTATCCA CCATATGCTC	8520
CAACATACGA GGCCAGCCA AGGTTCCTTC	TTTGGTCACA TGACCTACGA TAAAGATGGC	8580
AATGTTATTG GTCTTGGCCA ACTGCATGAG	TTCAGCGGTC ACTTCACGCA CCTGAGAAAC	8640
AGACCCCTGC ACCCTGAAA TCTCAGGAGA	CATGATGGTC TGGATGGAAT CAATAATGAG	8700
AAAGTCTGGC TGGATACGCT CCACTTCTGC	ACGAACACTC TGCATATTGG TCTCTGCATA	8760
GAGATAAAAC TCACTATCAA TATCACCTAA	GCGCTCTGCA CGTAGTTTAA TCTGCTGGGC	8820
AGACTCCTCC CCACTGACAT AGAGAACTGT	CCCCACTTGG GACAACTGGG TTGAGACTTG	8880
TAGGAGAAGA GTTGATTTC CAATCCAGG	ATCCCCACCG ATAAGGACGA GACTTCCTGG	8940
TACCACTCCG CCTCCAAGCA CACGGTTGAA	TTCTCCATC TCCGTCTTGG TTCGATTGAC	9000
ATTGATGGAA GTCACCTCAG CTAGTTTCAT	GGGCTTGGTT TTCTCACCTG TCAAGGACAC	9060
ACGCGCATTC TTAACCTCGG CAACCTCAAC	CTCTTCCACA AAAGAAGACC AAGACCCACA	9120
GTGTTGGGCAA CGTCCAGAT ATTTAGGGGA	ATTATACCCA CAATTTTGAC ATACAAATGT	9180
CGCTTTTTTC TTTGCGATGA CAAACCTCTT	TCTATATCTC TAACTCACAC TCAATCACTT	9240
GGCAAAAATC AATCTTCTCA TTTGGCACAA	ACTGGCGCAT GAGCATTCGA TGAGCAACAA	9300
CTACCACAGT CTGATGTTCT CGATACTTAG	ACATACATTC TAGAAACCGA GACTTCATTT	9360
CCGTAGCTGT CTCATATTGA ATAGGACTAT	TAGGAAGCAA CTCCCCCTTG TTTTCTAAAA	9420
ACAGTCTTCT AGCTGTTTCA AAGTTTCTA	TTCTGTTTT ATAGACCTGC CATTCATGTA	9480
ATAAAGGCTC TACTCTTAAA GGAAGACCCG	TAGCACAGAC CACATACGAA GCCGTTTCTA	9540
AAGTCTTGT GACTGCAGAA GATACGATTA	TTTCAGCTGA CGAGAGTAAA GGATTTTTC	9600
TCAATTTCTG GACTTGCTGC CGTCCCATCT	CAGACAAGGG TGCCAAATCT ATCCCAAATC	9660
CTATATAAGA ACGCTCCTCT AACTCACGGT	AATCTGGCTC CCCATGACGT ACAAAGATAA	9720
TCTTCATTCT AGTGCCCTGT CGATCCAAAT	CCACCAGTTC GAACGCCATC AGCTGCATCT	9780
CCATCTGCAA TTAAGAAAGT AGCAAAAACA	GCCTGGACAA TACGCTCCCC AACTTCAAGA	9840
ACAACCTCTT GGTCTGTGAT ATTCTTCATC	TGCGCAAAAA TATGCCCTTC ATTTCCAGGA	9900
TTTCATAAT AATCCCCATC AATGACTCCA	ACTGAGTTAA TTAAAACCAA GCCCTTCTTA	9960

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CGAGGATTTG AAGAACGATC ATAGAGGTAG AGAACCTCAG TCGGCTGCAT ATAAGCCTTA	10020
ACCCCTGTCG GAACCAAGAC AATCTCTCCT GCGCAACAA CTGTACGCAC AGCAACCTTT	10080
AAGTCGTAAC CAGTCGCATG CGCTGTCTCA CGCTTGGGCA ATAAATTTTC ATCTGTAAAA	10140
CTCGAAACCA ATTCAAAACC ACGAATTTTC ATAATTTTCT CTTTCTATT ATCATTTATT	10200
CTAGATTATT CTATACTTAT TTA	10223

## (2) INFORMATION FOR SEQ ID NO: 74:

## (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 16535 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 74:

TGGTCTGTC CTTATCGGCG CCTTGTCTTG CTTGCCATGG CTACACCAAC TATCTCATCC	60
GACGAAAGTA CACCAACCAC TAACGAACCC AACACAGAA ATACAACCAC CCTTGCCCAA	120
CCTCTTACTG ATACAGCAGC TGGCTCTGGT AAGACGAAA GTGATATTTC TTCACCTGGA	180
AATGCAACG CTTCCCTAGA GAAACAGAA GAAAAACCTG CTGCAAGCCC AGCCGATCCA	240
GCACCACAAA CTGGACAAGA TCGTTCAAGT GAGCCAAC TA CTTCTACTAG TCCAGTAACA	300
ACTGAACTA AGGAGAAGA GCCCATCGAA GATAACTACT TCCGTATCCA TGTCAAAAAA	360
CTTCCTGAAG AAAACAAGGA TGCTCAAGGA CTATGGACTT GGGACGATGT TGAAAAACCA	420
TCTGAAACT GGCCAAACGG AGCTTTGTCC TTCAAGGATG CCAAGAAAGA TGACTACGGC	480
TATTACCTAG ATGTCAAATT AAAGGGAGAA CAAGCCAAGA AAATTAGCTT CCTCATCAAC	540
AATACAGCTG GAAAAAATCT AACC GGCGAT AAATCTGTAG AAAAAGTAGT TCCAAAAATG	600
AACGAAGCTT GGTTAGACCA AGATTACAAG GTTTTCTCTT ACGAGCCACA GCCTGCAGGA	660
ACTGTTTCGCG TCAACTACTA CCGCACAGAT GGCAACTATG ACAAGAAATC TCTCTGGTAC	720
TGGGGAGATG TGAAAAATCC AAGTAGCGCT CAATGGCCTG ACGGAACAGA CTTTACGGCT	780
ACAGGCAAAT ATGGCCGCTA TATCGACATT CCTCTTAATG AAGCCGCAAG AGAATTTGGA	840
TTTTTATTAC TAGATGAGAG CAAACAAGGA GACGACGTGA AAATCCGTAA AGAAAATTAT	900
AAGTTCACAG ATTTGAAAAA TCATAGCCAA ATTTTCCTAA AAGACGATGA TGAATCGATT	960
TACACAAATC CATACTATGT CCATGATATC CGTATGACAG GAGCCCAACA CGTAGGCACT	1020
TCTAGCATTG AAAGTAGCTT TTCAACACTT GTCGGTGCTA AAAAGAAGA TATCCTCAAA	1080
CACTCCAACA TCACTAATCA CTAGGAAAC AAGGTAAC TA TACCGATGT TGCAATCGAT	1140

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GAAGCTGGTA AGAAAGTGAC CTACAGCGGA GATTTCTCTG ACACAAAACA TCCTTATACT	1200
GTAGCTACA ATTCCGACCA ATTCCTACC AAAACAAGCT GGCGCCTGAA AGATGAGACA	1260
TACAGCTATG ATGGCAAACCT GGGAGCTGAC CTAAGAAG AAGGAAAACA AGTTGATTG	1320
ACCCTTTGGT CACCAAGTGC TGATAAGGTT TCTGTTGTTG TCTACGACAA GAATGACCCCT	1380
GACAAAGTAG TTGGAACGTG CGCTCTTGAA AAAGGGGAAA GAGGAACTTG GAAACAACT	1440
CTAGACAGCA CAAACAACT CGGAATCACA GATTTCACTG GCTACTATTA TCAATACCAA	1500
ATCGAGCGTC AAGGTAAAAC TGTCTTGCA CTCGATCCTT ACGCTAAATC TCTTGCTGCT	1560
TGGAATAGCG ACGATTCCAA GATTGACGAT GCCCATAAAG TGGCTAAAGC CGCCTTTGTA	1620
GATCCAGCTA AACTCGGACC TCAAGACTTG ACTTATGGTA AGATTCACAA TTTCAAGACT	1680
CGTGAAGACG CCGTTATCTA CGAAGCTCAT GTGCGTGATT TCACTTCAGA TCCTGCCATT	1740
GCAAAAGACT TGACCAAACC ATTTGGGACT TTTGAAGCCT TCATTGAAAA ACTAGACTAT	1800
CTCAAAGACT TGGGTGTAAC CCATATCCAG CTCCTTCCAG TCTTGTCTTA CTACTTTGTC	1860
AATGAATTGA AAAACCATGA ACGCTTGTCT GACTACGCTT CAAGCAACAG CAACTACAAC	1920
TGGGGATATG ACCCTCAAAA CTACTTCTCC TTGACTGGTA TGTACTCAAG CGATCCTAAG	1980
AATCCAGAAA AACGAATCGC AGAATTTAAA AACCTCATCA ACGAAATCCA CAAACGTGGT	2040
ATGGGAGCTA TCCTAGATGT CGTTTATAAC CACACAGCCA AAGTCGATCT CTTGAAGAT	2100
TTGGAACCAA ACTACTACCA CTTTATGGAT GCCGATGGCA CACCTCGAAC TAGCTTTGGT	2160
GGTGGACGCT TGGGGACAAC CCACCATATG ACCAAACGGC TCCTAATTGA CTCTATCAAA	2220
TACCTAGTTG ATACCTACAA AGTGGATGGC TTCCGTTTCG ATATGATGGG AGACCATGAC	2280
GCCGCTTCTA TCGAAGAAGC TTACAAGGCT GCACGCGCCC TCAATCCAAA CCTCATCATG	2340
CTTGGTGAAG GTTGGAGAAC CTATGCCGGT GATGAAAACA TGCTACTAA AGCTGCTGAC	2400
CAAGATTGGA TGAAACATAC CGATACTGTC GCTGTCTTTT CAGATGACAT CCGTAACAAC	2460
CTCAAATCTG GTTATCCAAA CGAAGGTCAA CCTGCCTTTA TCACAGGTGG CAAGCGTGAT	2520
GTCAACACCA TCTTTAAAAA TCTCATTGCT CAACCAACTA ACTTTGAAGC TGACAGCCCT	2580
GGAGATGTCA TCCAATACAT CGCAGCCCAT GATAACTTGA CCCTCTTTGA CATCATTGCC	2640
CAGTCTATCA AAAAAGACCC AAGCAAGGCT GAGAACTATG CTGAAATCCA CCGTCGTTTA	2700
CGACTTGGA ATCTCATGGT CTTGACAGCT CAAGGAACTC CATTTATCCA CTCCGGTCAG	2760
GAATATGGAC GTACTAAACA ATTCCGTGAC CCAGCCTACA AGACTCCAGT AGCAGAGGAT	2820
AAGGTTCCAA ACAAATCTCA CTTGTTGCGT GATAAGGACG GCAACCCATT TGACTATCCT	2880

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TACTTCATCC	ATGACTCTTA	CGATTCTAGT	GATGCAGTCA	ACAAGTTTGA	CTGGACTAAG 2940
GCTACAGATG	GTAAAGCTTA	TCCTGAAAAT	GTCAAGAGCC	GTGACTATAT	GAAAGGTTTG 3000
ATTGCCCTTC	GTCAATCTAC	AGATGCCTTC	CGACTTAAGA	GTCTTCAAGA	TATCAAAGAC 3060
CGTGTCCACC	TCATCACTGT	CCCAGGCCAA	AATGGTGTGG	AAAAAGAGGA	TGTAGTGATT 3120
GGCTACCAAA	TCACTGCTCC	AAACGGCGAT	ATCTACGCAG	TCTTTGTCAA	TGCGGATGAA 3180
AAAGCTCGCG	AATTTAATTT	GGGAAC TGCC	TTTGACATC	TAAGAAATGC	GGAAGTTT TG 3240
GCAGATGAAA	ACCAAGCAGG	ACCAGTCGGA	ATTGCCAACC	CGAAAGGACT	TGAATGGACT 3300
GAAAAAGGCT	TGAAATTGAA	TGCCCTTACA	GCTACTGTTC	TTCGAGTCTC	TCAAAATGGA 3360
ACTAGCCATG	AGTCAACTGC	AGAAGAGAAA	CCAGACTCAA	CCCCTTCCAA	GCCTGAACAT 3420
CAAAATGAAG	CTTCTCACCC	TGCACATCAA	GACCCAGCTC	CAGAAGCTAG	ACCTGATTCT 3480
ACTAAACCAG	ATGCCAAAGT	AGCTGATGCG	GAAAATAAAC	CTAGCCAAGC	TACAGCTGAT 3540
TCACAAGCTG	AACAACCAGC	ACAAGAAGCA	CAAGCATCAT	CTGTAAAAGA	AGCGGTTCGA 3600
AACGAATCGG	TAGAAACTC	TAGCAAGGAA	AATATACCTG	CAACCCAGAG	TAAACAAGCT 3660
GAACTTCCAA	ATACAGGAAT	CAAAAACGAA	AACAAACTCC	TATTTGCAGG	AATCAGCCTC 3720
CTTGCGCTCC	TTGGTCTCGG	TTTCTTACTA	AAAAATAAAA	AAGAGAACTA	AACTAGCCCT 3780
CCTATAGAAA	AATCCCCCAA	GCATTATAGC	TCGGGGGATT	AATTTTGTGA	CAATATTTGT 3840
TGTCCTAATA	AACTTGATTA	GGATTTT TTA	TTAAGCCTCT	TTCATAGCAA	AATAAGCTCG 3900
TACTTTGGGT	GCAACTTG TG	TTCCGAAGAG	TTCAATAGCT	CTCAGAACCT	GGTCATGAGG 3960
CATAGAACCA	AGCGGTAGAT	GAAGCATGAA	GCGGTCCAAT	CCTAAATCCT	CTATCATGCG 4020
AATCAATTTT	TCGGCCACCT	GATCTGGATT	GCCAAACAAAC	ATGGCGCCAT	TTGGCCCTAC 4080
CTGCTCCAAA	TATTGCTCAT	AACGCAATTC	CTGCCAGTGC	GGACGGTCTT	TGGAAATAGC 4140
ATCCACCACT	TGCTTAGTCG	GATGGAAATA	ATCTTTCACC	GCCTGCTCAC	CATCTTCCGC 4200
AATCCACCCC	CAAGAATGGG	CTCCCACTTT	CAAGTCTTTG	TCAGCATGGC	CCCTTCGCTT 4260
CCAATCTCAC	GATAAGCCTG	AATCAACTTT	TTAAAATAAC	GTGGATTACC	ACCAATAATA 4320
GCATATACAA	TCGGTAGACC	AGCCTGAGCA	ATCTTCACTG	TTGATTGCAG	ATGACCACCT 4380
GTAGCTATCC	ACAAGGGCAA	TTTGTCTCTGA	ACTGGACGAG	GATAAACTTC	TTTACCAGCA 4440
ATCGTTTGAG	TCAATCGACC	TTGCCAGTCT	AACTTGGTCT	TTTCATTGAC	TAAC TGAAGC 4500
AAGCTAATT	TCTCATCAAA	AAGAGAGTCG	TAGTCTTTCA	AGTCATAACC	AAACAGAGGG 4560
AAAGATTCCG	TGAAAGAGCC	CCTTCCAGCC	ATAATCTCCG	ATCGTCCATT	TGACAAAGCA 4620
TCGATAGTGG	CATACTGTTG	GAACAAACGA	ATCGGTCCA	TGCTTGACAG	AATGCTGACT 4680

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GCACTGGTCA AACGGATTTT CTTGGTATTG ACTGCCCCAG CGGCCAGAAC AATCTCTGGG	4740
GCTGATACTG CAAAATCCGC CCGATGGTGC TCACCAATCC CATATACATC CAAACCAACC	4800
TTGTCAGCCA GCTCAATCTC TGCCACCAAC TGGCGAATGC GTTCAGCATG ACTGTAAGTT	4860
TGTCCAGTCC CTTCAAGCTC CGTTATTTCC CCAAATGTTG AAATTCCCAA TTCTACCATT	4920
GTGATTCTCC TTATCTATCT CTGTACTTCA ATTTGAAAAA TTATTCTAAC ACGAATCTTG	4980
AGTACAAGCA ACCGATTTCG TCATTAGAAA AAGCCTAGAT AACTAGACTT TTTTAGCTTA	5040
TTCTACCGTT ACTGACTTGG CAAGGTTACG TGGTTTGTCC ACATCGAGGC CACGGTGGAG	5100
GGTTGCAAAG TAAGCGACTA ATTGCGTTGG TACGACCATT GAAATTGGTG AGAGGTATGG	5160
ATGTACGGTC GTAAGGACGA TATCGTCGGT ATCTTTGGCT ACATTCTCTT CTGCGATAGT	5220
GAGGACTTTG GCACCACGGG CTGCGACCTC TTGGATATTT CCACGAGTAT GATTGGCAAG	5280
AACTGGATCT GACAAGAGAG CAAAACAGG CGTTCCTTCT TCAATCAAGG CAATGGTTCC	5340
GTGCTTGAGT TCTCCTGCAG CAAAGCCTTC AACTGGATA TAAGAAATCT CTTTGAGTTT	5400
GAGACTTGCT TCCATGGCTA CGTAGTAATC TTGACCACGT CCGATGTAAA AGGCGTTACG	5460
AGTTGTTTCA AGAAGTTCAC GAACCTTGAC TTCAATGGTT TCTTTCTCTG AAAGAGTTGA	5520
TTCGATAGAC TGAGCTACGA TTGACAATTC ATGAACCAGG TCAAAGGCTT GCGCTTTAGC	5580
ATTACCATT TCTTCTCCGA CTGCTTTTGC AAGGAAGGCA AGGGCTGCGA TTGCGCTGT	5640
ATAGGCTTTA GTTGATGCCA CGGCAATTC AGGACCTGCG TGAAGGAGCA TGGTATAGTT	5700
GGCTTCACGT GAGAGGGTTG AACCTGGAAC GTTTGTCACT GTTAAGCTTG GAATCCCAT	5760
TTCATTAGCC TTGACCAAAA CTGACGACT ATCCGCTGTT TCACCAGATT GGCTGATAAA	5820
GATGAAGAGT GGTTCCTTGC TGAGAAGTGG CATACCGTAG CCCACTCAG ATGAGATTCC	5880
AAGTTCAACT GGTGTATCTG TCAATCTTTC CAACATTTTC TTAGAAGCAA ATCCTGCATG	5940
GTAAGATGTT CCAGCTGCAA GGATGTAGAT GCGGTCTGCG TCTTGAACAG CCTTAATGAT	6000
ATCTGGGTCT ACGACAACCT GACCAGCCTC ATCTGTGTAG GCTTGGATGA GTTTCCGCAT	6060
AACAGTTGGT TGCTCGTCAA TTTCCTTGAG CATGTAGTAA GGGTAAGTTC CCTTACCGAT	6120
ATCTGACAAG TCAAGTTCAG CAGTGTAGCT AGCACGCTCA CGACGATTTC CATCATAGTC	6180
TTGAACTTCC ACACTATCAG CCTTGACGAT TACCAACTCT TGGTCATGGA TTTCATGTA	6240
TTGGTTAGTT TCACGAATCA TAGCCATGGC GTCTGAGCAG ACCATGTTAT AGCCTTCTCC	6300
AAGACCAATC AAAAGTGGTG ATTTATTTTT AGCTACGTAG ATGACTTCAG GATCTTGTGA	6360
GTCAACCAAG GCAAAGGCAT AAGAACCACG GATGATGTGA AGGGCTTTTT TGAAGGCTTC	6420

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AAGAACTGAG AGCCCTTCTT CTTCGCAAA TTTTCCAATC AAATGAACGG CTATTTTCAGT	6480
ATCTGTCTGC CCCTTGAAGT GGTGACCTGC AAGGTATTCT TCCTTGATTT CAAGATAGTT	6540
CTCAATCACC CCATTATGCA CCAAGACAAA ACGTTCCGTC TCAGAGCGGT GTGGGTGAGC	6600
ATTGTCCTCA GTTGGTTTTT CGTGAGTAGC CCAACGAGTA TGTCCGATAC CAGTTGTTCC	6660
CTCAACACCA GCTGTCTTGG CAGACAATTC TGCAATACGA CCAACCGCCT TCACCAAATG	6720
GTTATCAGCA CCATCTAGGA CAAAAATTCC CGCAGAATCA TAGCCACGGT ATTCAAGCTT	6780
TTCAAGCCCT TGAATCAAAA TATCAGTTGC ATTTGTGTTT CCAACAACAC CAACAATTCC	6840
ACACATAGTA TATACGACAC AGGCAAGCTG TGCTTTCTCC TTAATAATTGG TATAGTCTAA	6900
TTTATCTTTT ATAGAATCAG CAAAAACAGT ATATACTTGT TTCTTTCACT TGTCAAGAGT	6960
AAAAATTGGT ATAGTTCAAA TTAAGCTCCT GTAAGCATAA AACTCTGAC CGATTGGGAT	7020
AATCAGTCAG AGTCCTTTTT AAAATCCATT ATTATCGCTT AATTCTTTGA ACCAGTGGCC	7080
TGATTTCTTC AGACGACGTT CTTCGCTTTC CAAGTCTAAT TCGACCAAAC CATAGCGATT	7140
TTTATAGCTG TTGAGCCATG ACCAGCAGTC AATAAAGGTC CAAATCAAGT AGCCCTTACA	7200
GTGGGCACCA TCTTCAATGG CACGGTGAAG TTCACGAAGA TGACCTTTTA CAAAGTCAAT	7260
ACGGTAATCA TCTTGAATCA TTCCATCTTG ACGGAATTTT TCTTCCCCTT CAACACCCAT	7320
ACCATTCTCA GTCAACATCC ACTCAATATT GCCATAATTT TCCTTGATAT TTTGGGCGAT	7380
GTCATAAATC CCTTGCTCAT AAATCTCCCA ACCACGGTGA GAATTGATTT TACGTCCAGG	7440
CATCACATAA GGCTCGTAAA AATGTTCTGG TAAGAGTGGA CTCTCTGGAT GCTTAGCAAA	7500
TCGAGGAGCC ATAACACGCA AAGGTTGATA GTAGTTCACA CCAAGGAAGT CCACCGTATT	7560
ATCACGAATG AGTTCCAACCT CTTCTCTGTG AGCATCAGGT AAAAGACCGT GTTCATGCAA	7620
GATTTCTACC AACTCCTGTG GATAAGTCCC CAAGACAGAT GGATCTAAGA AAGATTGGGC	7680
CTGAAAAAGG GCCGCAATAC GAGCTGCCTT GACATCAGCA GGATGCTGGC TACGTGGATA	7740
AGCCGGTGTC AAGTTGAGGA CAATCCCAAT CTTGGAATCA GGCAAAAGTT CATGGCAAGC	7800
CTTAACAGCC CGGCTGCTGG CCAATTGTGT ATGATAGGCT ACCTTAACAG CTGCCTCTGC	7860
ATCCACCTTA TGTGGATAAT GGCATCATA AAAATAACCA AATTCTACAG GAACGATGGG	7920
CTCGTTAAAG GTAATCCATT GATCCACTAA ATCTCCATAA GTCTCAAAAC AAAAACGAGC	7980
ATAGTCTTCA TAGGCTGAGA CTGTGCGCTT ATTTTCCCAA CCATCACCAT CCTCTTGAAG	8040
GGCAAAAGGT AAATCAAAAT GATAGAGATT GACTAACAGA CGAATTCCTT TAGCCTTAAT	8100
AGCCTCAAAG ACCTTACGAT AAAAATCCAC ACCTTGAGTG TTGACTTTTC CACAGCCTTG	8160
TGGAATAATC CGTGACCACT GAATAGAAGT CCGAAAGGCT GTGTGACCAG TCTCTAACAA	8220

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AAGCTCAATA	TCCCGCTCCC	AATTTTCATA	AAAAGTCGAT	GTCTTATCTG	AACCAATCCC	8280
ATTATAGTAA	CGATTGGCT	CCACTTGGAA	CCAGTAATCC	CAGAGATTGT	CTCCCTTACC	8340
GTCACCAGCT	ACACGTCCTT	CTGTCTGCGG	TCCAGAAGTA	GAGGATCCCC	AGACAAAATC	8400
CTTTGGAAAT	CTTAGCATAC	ATTTACCTCT	TTATCTACTC	ATTTCTCCCA	TTATACAGAA	8460
AAAACAAGGT	AAAAACTAGT	TACATTTTTT	CCTTGTTTTT	CTTCTGATTA	TAGTTTTTAT	8520
TTCTTGCTTA	GGATTCAAG	CGTTTCAAGC	ACGTTATCTG	CATGAACCTC	AATGGTGTCA	8580
CCAGTTGCCT	TGATCTTAAC	TTCTACAATG	CCATCGGCCG	CTTTTTTACC	AACAGTGATA	8640
CGGATTGGAA	GACCAATCAA	GTCACTATCG	CTAAATTAA	CACCGACACG	TTCGTTACGG	8700
TCATCTGTCA	AGACTTCATA	ACCAGCTCCC	ATCAAGCTTG	CTTCAAGTTT	TTCTGTCAAG	8760
GCTTGCGCTT	CTTCATCCTT	GACATTGACA	GTAATCAAAT	GCACATCAAA	TGGTGCCAAAT	8820
TCTTTAGGGA	AATTGATTCC	CCAAGCGTAA	CGGTATTAC	CTTTTGCGGT	TTTGTTAACA	8880
AAGAGGCGAG	CGTGTTGCTC	CATCACTGCT	GAAAGAAGAC	GGCTGACACC	GATACCGTAA	8940
CATCCCATGA	TGATTGGCAC	AGCACGACCA	TTTTCATCCA	AGACATCTGC	TCCCATGCTT	9000
GCTGAATAGC	GAGTTCCGAG	TTTGAAAATA	TGACCGATCT	CAATACCACG	CGCAAAGTTA	9060
AGGACACCTT	GTCCATCTGG	GGAAATTTCA	CCCTCACGAA	CTTCACGGAT	ATCCACATAT	9120
TCTGCAGTAA	AATCACGGCC	TGGGTTTACA	CCAGTCAAGT	GGTAGTCATC	TTCGTTAGCA	9180
CCGACAACTG	CATTGCGAAC	ATCTTGTAAC	TTACGATCTG	CAATAATTTT	AATATTCTCT	9240
GGCAAACCAA	CTGGTCCAAG	TGAACCAAAT	CCTGCTTGAA	CAACATTTCG	CACCTTCTTCT	9300
TCGCTAGCAA	CGTCAAAGAA	ATCTGCTCCC	AAGTGATTTT	TCAACTTGAC	TTCGTTGAGT	9360
TGGTCATTTC	CAACTAGAAG	GGCTGCAACA	AGCTCACCAT	CTGCAATGTA	GAAGAGGGTT	9420
TTAATCGTTT	GTTCTTCTGG	AACATTGAGG	AAGGCTGCAA	CTTCATCAAT	TGATTTAACA	9480
TCTGGCGTTG	CAACACGAGT	AACTTCTTCT	TCAGCGACAA	CACGGTTGCT	TGGTTTGTAC	9540
TCGTTTGTG	CCATTTCTAA	GTTAGCTGCA	TAGCTAGACT	CACCTTGAGTA	AGCAATGGTA	9600
TCTTCACCAG	AGACTATCCA	TTTGAGCAAT	TCTGCCTTGA	TTTCTTCTTG	CACCTTCTGCA	9660
GGAAATTCGT	CAAATGAGGC	AACTGACTTG	TCCAAGACAA	CCCAGCGGTC	AAGGTCTGTA	9720
CGAGCAGATG	TAATGGCCAT	AAATTCTTGG	CTATCCTTAC	CACCCATGGC	TCCACCGTCA	9780
CCAATAATAG	CCTTGAAGTC	TAAACCACTA	CGAGTGAAAA	TACGCTCATA	GGCTGCTTTG	9840
TACTCATCAT	AAACACTATC	CAAACATCA	TAGTTAGCGT	GGAAACTATA	AGCATCCTTC	9900
ATGATAAACT	CACGTGTACG	AAGAAGTCCA	TTACGCGGGC	GTTTTTCATC	ACGATACTTG	9960

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GGCTGAATTT GATAAAGGTT GAGTGGCAAT TGCTTGTAAG ATTTAACAGA ATCACGGACA	10020
ATAGCTGTAA AGGTTTCTTC GTGAGTTGGA CCTAAGATAA AGTCTGATTT TTCACGGTTT	10080
TTTAGTTTGT AAAGGTCTTC ACCATAGGTT TCGTAACGAC CTGATTCACG CCACAATTCT	10140
GCACTAAGAA GGGCTGGAGC CAACATCTCA ACAGCACCAA TCTTTTCGAA TTCCTGGCGC	10200
ATGATGTTTT TAGCTTTTTC AATCACACGG TTGGCAAGTG GTAGATAAGA ATAAACACCT	10260
GCTGAAACTT GCGGAACATA ACCAGCACGC AACATAAGAG CATGGCTGAT AACTTGAGCA	10320
TCGCTTGGCA TTTCGCGAAG CGTTGGGATA GGCATTTTAC TTTGTTTCAT AATATTCCTC	10380
GATTATCTAA AAAAGAGTCG CATAATGTCA TTCCAAGTCA CAGCAATCAT CAAGACAACC	10440
ATGATGACCA CTCGGCCAA GGTGACATAG GTTCAATTT CTTGTTTCAA TGGTTTGCGG	10500
CGGATGGCTT CTAGGATATT GAGCACAATC TTACCACCAT CCAAGGCTGG AATCGGAATA	10560
AGATTAAAAA TCCCAATATT GATGGAAATC ATTGCCAAGA AGTACAAGAT ATTTTCAATT	10620
CCATTTTTAG CAGCATCACT ACTTGCCTTA AAGATAGCAA CAGGTCCACC CAACTTGTTC	10680
AAATCTGGTT GGAAAATCAG ATTTTTCAGA GCTGAGAGAA TTCGGAGAGC TGAGTCAGCA	10740
GCACTTGTA AACCACCTAC AAACATGGAT AGAAAATCTG ACTTAACCCC CGGTTGAACA	10800
CCTAGAAGGT AACGACCTTG ACTATCTTTG GGTGTAACAG TGACTTGTTT GTCACTCCCC	10860
TTTTCAGAAA TAGTCACATC CAAAGTCGGT GCCGTCTTAT CTTTGGTTTC TGTTTCCACA	10920
GCTTGATCA AGCTTTCCCA GTTGCTAACC TCATGTGAGC CAATCTTGGT AATTGTGCC	10980
ATTTCTGGTA CTCCTACCTT GGCCAAGGCA CCTTGGGGCA TGATATGGAA CTGATTGGTA	11040
TCAACATCTC TGACACCACC CTGCATAAAG ATTAAAACCC AAAAAACAAC GACACCTAAG	11100
ATAAAATTGT TCATAGGACC TGCAAAATG GTAATCAGTT TGCCCCAGAT AGTCGCATTT	11160
TGATATTGAA CATCTAAAGG TGCAATCCGA ACCTCAGTAC CATCTGCTTC CACAACCGTT	11220
GCATCGTGAT CCACTGCAAA TGTTTTTTCT TCTTCCAGAA CCAATCCTTT GATAAAGAGC	11280
TTGTCTTCAA AATCAAACCTG GGTCACCTGC ATAGGGAGGG CTGTTTGATC CAATTTTTTA	11340
CCTGAGAGAT TGATGCGTTT AACCTTACCA TCATCAGCAA GTGTCAAACCT AACAGGCGTT	11400
CCTGTCTTGA TTTCAGTTGT ATCATCACCC CAACCGGCCA TGCGGACATA GCCACCCAGA	11460
GGCAAGATTC GAATGGTATA GGCCGTTCCT TCCTTGCCAA TGTGAGCAAA AATTTTAGGT	11520
CCCATACCGA TGGCAAATTC ACGTACTAAA ATCCCTGATT TCTTGGCAAA GTAGAAGTGA	11580
CCGAACCTCGT GCACCACTAC AATAATCCCG AAAACCAGAA TAAAGGTTAA AATTCCGAGC	11640
ATAGCGTTTC CTCCGTCTTT TGATTAAAAG AGTCCAAATA AGTGCATGAT TGGAAATACA	11700
AGCAACATAC TATCGAAACG ATCCAAAACA CCACCATGTC CAGGGATAAA TTTCCAGAA	11760



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TCCTTAACAC CAAAATGACG TTTGATCGAA CTTTCTAGTA AATCACCAAA TTGTCCAGCA	11820
ATGCTAAAGA AAATAGCAAA GACTGACATC TTGTAAATTC CATATGGAAG AGCAACTGTA	11880
CTGTCAACTA TCATAAGGAT AATGGTACT AAAATTGCTC CTAAAATACC ACCCAAGGCA	11940
CCCTCAAGGG TTTTATTAGG CGATACCCTT GGTGCTAACT TTCGTTTCCC ATAGTTCATC	12000
CCAACAAGAT AGGCACCACT GTCTGTCGCC CAGACGATAC ACAAGGCTAA GAGAGCCTTG	12060
TCCAAACCTG CAACACGAGC ATCTAGTAAA GCATTAAATC CAAAGCCCAC GTAGAAGCTC	12120
ATAGCAAGAG GGGAAACCGC ATCCTCAATC GTATAAGACT TGCTAAAAAC GGTGCTTCCT	12180
AACATGATTG AAATCAAAAC ACTATAGGCA ACCACATTCC CATCAACTGG CAAAAAAGTC	12240
AGGTAATTCT CCAAGGGAAT GGTCAATGCA AAGGTTGCAA AGAGGGTCAA GAGGCCCTCC	12300
ATCGTCATGG TCTCTAGACC TCTCATCTTC AAAAGTTCAT GCATGGCTAG CATGGCTATG	12360
ATTCCGATTG CTATCTGAAG CAAGAGGCC CCAATCATTA AAATTGGTAG GAAAATAGCC	12420
AGGGCAATCC CTGCAACAA GGTCTTTTC TGTAAATCCT GGGTCATATT TCCTCCTAAA	12480
CTCTCCAAA TCGGCGATGA CGACGATTAT AGGCAAGAAT AGCTTCCTGC AAGGCCGCTT	12540
CGTCAAAATC AGGCCATAAG GTGTCCGTAA AATAAAGCTC ACTATAGGCT CCCTGCCATG	12600
GAAGGAAATT GCTCAAACGT AATTCTCCAC TAGTACGGAT AATCAAGTCT GGTCTCGTA	12660
AGTCCTTAGG CAAATGCTGA GTAAAGAGAT AGTTACCAAT CAATTCCTCT GTGATGTCAC	12720
CTGGGTTGAT TTTGGCATCT AAAACATCCT GGGAAATCAA CTTAAGCGCC TGTGTAATCT	12780
CAGCACGTCC ACCATAGTTA AGAGCAAAAT TAAGAATCAA TCCTGTGTTG TTCTTAGTCA	12840
ATTCCTCAGC CTGGTTAAA GCTTCAAAGG TTTGCTTAGG CAGGCGGTCT GTCTCCCCAA	12900
TCATTTGAAT CTTAACATTA TTCGCATGTA GTTCCGGGAC ATAATTATCA TAAAACTCTA	12960
CTGGCAAGTT CATGATAAAC TTGACTTCCT GATCTGGACG GGTCCAGTTT TCCGTAGAAA	13020
AAGCATAGAC CGTAATAACC TTGACGCCCA GTTTGTTGGC TGCCTTGGTC ACGGTTTGCA	13080
ATGCTTCCAT GCCCGCCTTA TGTCCAAAA CTCGCGGTG CATACGTTT TTAGCCCAAC	13140
GGCCATTGCC ATCCATGATG ATGCCGATAT GAGCAGGAAC CTGTGTCGGA ACCTCTACTT	13200
CCACAGCCTT ATCTTTCTTA AAAAATCCAA ACATGATCTT ATTCCTATTC AAAAATCTAT	13260
CGTTTCATTA TACCATATTT CCCCATTTTC TTCTATCACT AAGCTATTTA TTCTCAGGCA	13320
CCAAGCCCAT TTTTCAAAAA AATAAGCCGC CTGATTGGGC GACTTTATTT TTATAGGGAG	13380
ATTATTATGA AAAAGTTTAA GGAGTTTAAG TTAAGGTCTT CTTAACTTAT GAAGTTAGTG	13440
TACACTCCCT AGCTTAAAGT TTCCTTAAGT ATTTTAAAA ATCAAATTTT TCCATTTCTC	13500

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CTGCCAATTT TTCTTGGATA AACGTGTTTG ATAGAGTTCC ATTCGGTCTT CATTTTCTAA	13560
GAAATGAGGA GTTGGACGAA CTTGAAAATT CAAAATATCC TCCAAACCAT AAGGTACATA	13620
GAGTTCAAAA TCTAATTCTT CATTCAAGCG CAGTCCAACCT GCCGTACACC GTTCTGGATA	13680
CTTACTCATA GCATCACGAG AACTGGTATA GGAAGCAGTG TGAGGACTGT GCTGATGCAT	13740
ATAGACCTGA TTTTTC AATT CCCACTGGTA CTGAGGAAAA TCCTCTCTCA GCTTTTCTC	13800
CAGTAATAAG GTTTCCTCAT AAGAAAAATC TGGATCAAAG AAAATCACAT CTATATCTGT	13860
TTCATGATCA AAAGGGGATT TGTCTGACAA AAGATTCCAG ATGAAATTTC TGACAGAACC	13920
TGCTGCCAAC CACGAGTCTT TCAAACCAAG GTCTCGGATG ATCGTCAGAA TGGCCATCAT	13980
ATCTGGACTT TCTCTAAAAG CCTCTAAGAT TTCTTGCTTA TTTTTCCTG TATTCTAATC	14040
CTAAGTGCTC ATATGCCTTA GCAGTCGCCA CCCGTCCAGA CCGTGTCCGC ATGATAAAAC	14100
CTTTTGAAT CAAGTAAGGC TCATACATGT CTTCAACTGT CTCACGCTCT TCGGCGATAT	14160
TCACAGAAAG AGTTCCTAGA CCAACAGGTC TCCTCACTGTA CATCTCAATC ATGGTGCGAA	14220
GGATTTTGTG ATCCACATAG TCCAAACCTT CATGGTCAAC ATCCAGCATA GTCAAAGCCT	14280
TATCGTAAT AACATCATCG ATAACCCCAT TCCCCATTAT CTGGGCAAAA TCGCGCACGC	14340
GCTTGAGGAG ACGATTGGCA ATACGAGGGG TTCCACGACT ACGTAGGGCC AACTCAGATG	14400
CTGCCTCATG GGTGATTTCC ATCTCAAAAA TATCTGCCGT CCGCTCGACA ATTTCTGTCA	14460
AGTCAGCATG AGCATAATAC TCCATATGAC CTGTAATCCC AAAACGTGCC CGTAGTGGAT	14520
TTGAGAGCAT ACCAGCCCGA GTCGTCGCAC CAATCAAGGT AAAAGGAGGC AACTCCAAAT	14580
GAACACTGCG ACTGCCTTCA CCAGCCCCAA TCATAATATC GATGTAGAAG TCCTCCATGG	14640
CACTATAAAG CACTTCTTCC ACTGACATGG GTAAGCGATG AATCTCGTCA ATAAAGAGGA	14700
CATCTCCAGG CTCTAAATCA TTCAAAATCG CTACCAAATC ACCCGCTTTT TCGATAACAG	14760
GACCAGACGT TTGCTTGAGA TTGACTCCCA GTTCATTGGC AATGACAAAA GCCATGGTTG	14820
TTTTCCCAAG CCCTGGAGGG CCAAATAAGA GCACATGATC CAGCGCTTCA TCCCGCATTT	14880
TAGCGGCTTC GATAAAGATC TGAAGTTGAT CCTTAACCTT ATCCTGACCA ATATATTAC	14940
GTAAATACTG AGGACGGAGC GTGCGTTCTA CTAACCTCTC ATCACCCTATC ATCTCATTAT	15000
CTAAAATTCT ACTCATGGCT CTATTATATC AAAAAACA AGCCACAAAC AAAAAAGCCA	15060
CCTGATTGGG TGACTCCTAA GTTTAGCACT TATGTGGTAT AATATTATAC GGCACCTCTA	15120
CACCGCTTAC GAAAGGAGGT GAGATAGCCC ATGATGGAAT TAGTACTCAA AACTATTATC	15180
GGACCAATTG TGGTCGGTGT CGTTCCTCGT ATAGTCGATA AATGGCTAAA CAAGGACAAA	15240
TAGTGTCAAA AAAGACCTCA AGCTTATTTG GTCGTGAGCT TGGGGTCTTT TCTAGCCTAT	15300

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GATATAGAAC TAGTACTCAA TTCCTTTTTA TTATCCCATTA GTTCACGAAT TTTGTCAAAA 15360  
 CTTTACATTT TCTTCAACCG CTGTACGACA AGACGGTTAA GATTAAGAGA ACGTTAGGGA 15420  
 TTCTATCAAT TTCATAGAAA TTTTGATTTC GTAAACGAAG AGACAATCTT ACATGTCACT 15480  
 TCTCATTTAA TACGCCACTA CTAGACAAGC AAAATCATT AATTACAGTAGT TCCAGTCCTT 15540  
 CAATTAACAG TCACTTACAA TCAAATTGAG TTTGAACTAG CTGAAGCGAC CACAGACCTA 15600  
 TTTCTTAGTC ATATTCGCTA AAAAAATCCC CGCCAAAATC TCAAAAAGTC CCCGCCAATT 15660  
 CCCCAGCAA AATCCGAAAA ATACCGAAAA ATATCGAAAA ATTATTTTTA GAATAGTCCC 15720  
 AAAAAATCTG AAATAGAGCT AAAAAACTCC ACCTGATTTC GTGGAGTTAA GGGAGATTAT 15780  
 TATGAAAAAG AAAAGTTTAG GATTTTATTA AATAAAGTTA GGAGGTCTTT ATTTAATAAC 15840  
 TACATGATAC AAGACGAAAC TTAATACTAG CTTAACTTTT CTAAAATTTT ACTATTTTGC 15900  
 AAAAAATTTT TATCACCAGC ACCTCACCAA TCGAGTAGGG GATAATCTCT AGCCCCCTCTC 15960  
 ACACCACCGT ACGTGCCGTT TGGCATACGG CGGTTCAACT AACTTTTAAAC GCATGTCGTT 16020  
 CAAGGTAATA ATCCAAACAC GAAACCAGTC CACGTTTTC CAGGACTGGT TTTGATATAG 16080  
 CACGTTAAG TACCGACTTC TGAGCTACTA ATTGATAATG GTCGCCCCAG CCAGATACCT 16140  
 TATCTGCTAT CCATTTAGGA ACTCCTAACT TAAGCAATCC CCATAATCGT CTCGATTCTT 16200  
 TCTTCCATTG CTTCCAGATA ATCACTCGTA GCGGAGTACG CAAGCGCTCA TCTATGCTGG 16260  
 CGACTATACT TTTTCATATT CCCAATGAGC AATAGTTTAT CCATCCTCGA ATAGACAAAT 16320  
 TCAGTTGCTC AATACGTCTT GTTAGGTCTA TACTCCATTT CCTCTGTGTT AGTTTCTTCA 16380  
 ATTTAACTT AAATCTCCGA AACTATCTT GATGTGGACG GCTTTTCCAA CCATCTGATA 16440  
 ATTTCCAGAA CCCAAAACCT AGATATTTCA ACTCTCTTGG TCATGTTTAC TTTCAAACCT 16500  
 AGCCGTTTCT CAATAAACGA CTGACTGAAT ACATC 16535

(2) INFORMATION FOR SEQ ID NO: 75:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8136 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 75:

CCAGAGCGTT GCGTCCGAAA GTCTATCCAG ACACGCTCT TAAAAACAA AAGGAGAAAT 60  
 GATGCATACT TATTTGCAAA AGAAAATTGA AAATATCAAA ACAACCCTAG GTGAAATGTC 120

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AGGTGGTTAC CGTCGTATGG TTGCGGCTAT GGCTGATTTA GGATTTTCAG GAACTATGAA	180
GGCTATCTGG GATGACCTCT TTGCCCATCG TAGTTTGGCC CAGTGGATTT ATTTGCTGGT	240
TTTAGGAAGT TTTCCTCTCT GGCTGGAGTT GGTTTACGAA CATCGTATTG TTGACTGGAT	300
TGGGATGATT TGTAGCTTGA CAGGGATTAT CTGTGTAATC TTTGTATCGG AAGGTCGAGC	360
AAGTAATTAT CTTTTTGGCT TGATTAATC TGTATTATC CTTATTTTGG CCCTACAGAA	420
AGGCTTTTAT GGTGAGGTGC TGACGACACT TTAATTCACA GTCATGCAGC CAATTGGACT	480
TCTAGTTTGG ATTTATCAGG CACAGTTTAA GAAGGAAAAG CAGGAGTTTG TCGCGCGTAA	540
ACTGGACGGC AAGGGCTGGA CAAAGTATCT TTCCATTAGT GTGCTTTGGT GGTGGCCTT	600
TGGCTTCATT TATCAGTCTA TTGGTGCCAA TCGTCCCTAT CGTGATTCAA TCACAGATGC	660
AACCAATGGG GTAGGGCAA TCCTCATGAC AGCTGTTTAC CGTGAACAGT GGATATTCTG	720
GGCGGCTACC AATGTCTTTT CAATCTATCT CTGGTGGGGA GAAAGCCTGC AAATTCAAGG	780
GAAATATCTA ATTTATCTCA TTAACAGTCT AGTTGGTTGG TATCAATGGA GCAAGGCAGC	840
TAAGCAGAAT ACTGATTTAC TTAAC TAGGA AAAGATGTTT GAAAGTGCTG TTTTGAGATT	900
TCGATTAAAA CAGATATAGT TGATAATCAA GGATTTATAG TATGAAAAAG AGGATCGGCG	960
GGTCTCTTTT TGTGTGTGAA AAGATAAAAA ACTCAGTAAC CTAGAAATAA GACAACTGAA	1020
GCTTTACTCT ATATTCAATT TTTAGGAATG AGAAGGTCTA GATAAAATG GACAACTTCC	1080
TGGTCTGTGA AATCTTGACC TTTTTTGAGC CACCAGGTCA ATGTCTCGAT AAAGTTGGAC	1140
ATGACCAAGT GTTGGAGSTA AGAAGTAGGC AGATTAGGGT GGGCTTCTTT TAAATTATCA	1200
GCTAGCACGG AATAGACATG GTGTCTTAGC TCTTTATGGA GTTGACGGAG GAAGTAGTCA	1260
TTTTTGGAAT ATAGCAGACT GGTGATATGG TCTTGGTTTT TATGAAAATG GAGAAAGAGG	1320
TGGGCGAGGT AGTCCCTCGT TGAAATGGCT TGCTCTCTTT CAAAAAGATG ATGGAAGAGG	1380
TAGCGGCAGA GCTGGTCCAG AAGAAGCTCC TTAATCTCAT AGTGACAGTA AAAGGTGGAT	1440
CGTCCCACAT CTGCGAGATC AATGATATCC TGAACAGTAG TGGCCTCGTA GCCCTTAGCA	1500
TTCAAAAGTT GTATAAAAGC TTGATAGATG GCTTTTTTGG TTTTGCTGAT ACGGCGGTCA	1560
ATGTTAGTCA TATGGACACT TAAGGCAAAT TGTTTCAAGC TGAATAAAGC TGACGTTTTG	1620
CTTCTATCCT TTCTTTGAGT TTTAGTGGAT AATGATAATG AACAAGGTGT TCATAAATCT	1680
ATTATAACAA AGGAATGAGA AATATGAAGG CAAAATATGC TGTTTGGGTG GCTTTTTTCT	1740
TAAATTTGAC TTATGCCATT GTTGAGTTTA TTGCAGGTGG AGTATTTGGT TCTAGCGCTG	1800
TTCTTGCTGA CTCTGTGCAT GACTTGGGAG ATGCGATTGC AATTGGAATA TCAGCTTTTC	1860
TAGAAACAAT TCCTCAATCGT GAAGAAGACA ATCAGTACAC CTTGGGCTAT AAGCGGTTTA	1920

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GCCTGCTAGG AGCCTTGGTA ACAGCTGTGA TTCTCGTAAC GGGCTCTGTT CTAGTCATTT	1980
TGAAAAATGT CACGAAGATT TTGCATCCGC AACCAGTCAA TGATGAGGGG ATTCTCTGGT	2040
TAGGAATTAT TGCGATTACT ATCAATCTGT TAGCGAGTCT GGTGGTTGGT AAGGGAAAAGA	2100
CAAAGAATGA GTCTATTCTG AGTCTGCATT TTCTGGAAGA TACGCTAGGG TGGGTAGCTG	2160
TTATCCTGAT GGCGATTGTT CTTCGATTTA CGGACTGGTA TATCCTAGAT CCTCTTTTGT	2220
CCCTTGTCAT TTCTTTCTTT ATTCTTTCAA AAGCCCTTCC ACGTTTTTGG TCTACACTCA	2280
AGATTTTCTT GGATGCTGTG CCAGAAGGTC TTGATATCAA GCAAGTAAAG AGTGGCCTGG	2340
AGCGATTGGA CAATGTGGCC AGCCTTAATC AGCTTAATCT CTGGACTATG GATGCTTTGG	2400
AAAAAATGC CATTGTCCAT GTTTGTCTAA AAGAAATGGA ACATATGGAA ACTTGTAAG	2460
AGTCTATTCG AATTTTCTTA AAAGATTGTG GTTTTCAAAA TATTACCATT GAAATTGATG	2520
CTGACCTAGA AACTCACCAA ACCCATAAGC GAAAGGTGTG TGACTTGGA CGGAGTTATG	2580
AGCATCAACA TTAGAAAAA GTGAAAAATA CTGGGTACT ATCTTATTG GAATAGAGTA	2640
ATTTCTTTAT TATTTAAATA TTTCAAAAAT TGGTAAGAGA AGAGCATTGT ATAACTCCA	2700
GATATATGAT TGTTAATGAT AAAAATTTTT CGATTAGATA CAAAATGCTT GACTTGGAGT	2760
CAACTCAAAG TTATATAATA AGATAAGTGA GTTAGAATAG CGTGAATTCA GTGAATGAAA	2820
TGAGAGGAGG TTAGCGTGTG AATATTAAAT CTGCCAGTGA TTTGTTGGGA ATTTACGCGG	2880
ATACGATTCG GTATTATGAA CGGGTTGGTC TTGTGCCACC GATTACTCGT ACTGCTACTG	2940
GGATTCGTGA TTTTCAAGAT CAGGATATCG AAGCGCTGGA ATTTATTAAG TGTTTTCGTT	3000
CGGCGGGTGT CTCTGTAGAT AGTTTAGTTG ACTATATGTC GCTCTACCAA AAGGGAGATG	3060
AAACGAGAGA GGAGAGGCTT GGTATTTTAG AAGAGGAAAA GCAAAAATTA GAGGAGCGCT	3120
TGTCTCAGCT ACAGACAGCT TTAAATCGTT TAAATCTCAA AATTAACTT TATAAGGAAG	3180
GAAAATTTTA AATGAAATCA GCAGTATATA CAAAGGCAGG TCAGGTGGA CTTGCTAGCA	3240
TTGAACGTCC GCAAATAATA GAAGCGGATG ATGTGATTAT TCGTGTGCTT CGTGCGTGCG	3300
TTTGTGGTTC AGATTTATGG AGGTACCGTA ATCCAGAAAC GAAAGCTGGA CACAAAAATA	3360
GTGGACACGA AGCGATTGGG ATTGTTGAAG AAGCTGGGA AGCCATTACG ACGGTGAAAC	3420
CAGGTGATTT TGTGATTGTC CCTTTTACAC ATGGATGTGG TGAGTGTGAT GCCTGTCTTG	3480
CTGGATTGGA CGGTCTTGC GACAATCATA TTGGCAATAA TTTGGGGGGT GATTTTCAGG	3540
CAGAATATAT TCGCTTCCAC TATGCAAAC GGGCGTGGT TAAAATCCCT GGTCAACCTT	3600
CTGACTATAC AGAAGGGATG CTCAAGTCCC TTTTGACTCT TGCAGATGTC ATGCCGACAG	3660

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GCTATCATGC GGC GCGTGT GCAAATGTTT AAAAAGGGGA CAAGGTTGTT GTTATCGGTG	3720
ATGGGGCTGT TGGTCAATGT GCTGTCATCG CCGCTAAGAT GCGTGGAGCA TCACAAATTA	3780
TCCTTATGAG CCGTCATGAA GACCGTCAAA AGATGGCTAT GGAGTCAGGT GCGACAgcTG	3840
TTGTTGCAGA ACGTGGTCAA GAAGGAATTA CCAAGGTGCG TGAAATCCTC GGTGGAGGAG	3900
CAGATGCAGC ACTTGAATGT GTTGGTACGG AGGCTGCTAT AGAACAGGCG CTAGGTGTTT	3960
TTCATAATGG AGGGCGTATG GGCTTTGTAG GAGTCCCACA CTATAATAAT CGTGCTCTTG	4020
GTTCGACATT TATGCAAAAT ATCTCTGTAG CAGGTGGGGC AGCTTCTGCT ACAACATACG	4080
ATAAGCAATT TTTACTAAAA GCCGTCCTTG ATGGTGATAT CAATCCAGGT CGCGTCTTTA	4140
CTTCAAGTTA TAAACTGGAA GATATCGACC AAGCCTATAA AGATATGGAT GAACGTAAGA	4200
CAATTAAGTC TATGATTGTA ATCGAATAAA AAACGAATAG GAGTTTTAGA ACTCTATTCTG	4260
TTTTTTATGT TATCCTATTC TTGATTTAGG GTACTTTCTC TTAATGTCAG TCTGGTCCCC	4320
AGCATGGTCA GGCTAGGGAT TTTCCGACCG TGGAGGACTT CCTTGTTAAG AATATCCATA	4380
CCTGCTCGGC CCATTTCTTC AGTATAAACT GTAATACTAG AGAGGGGAGG ATAGACCTGT	4440
TTGGTCAGAC TAGTGTCGTT AAAGGAAATG AGGCTGACGC GATCTGGCAG GCTGATTCCA	4500
GCTTCTTGGA GGGCACGGAG GGCACCGATA GCTAAACTAT CGCTGGCTGC GAAAAATGCT	4560
GGCGGAAGTT GGTCTCCCAA GCTCTGAATG GCCTCCTTCA TTAAGTCATA GCCAGACTGG	4620
GCAGTAAATC TTCCTTGAAA GACCAGTTCA TCATGATAGA TTCCCCTCGC TTGACTATAG	4680
TTTTTGAAGT TTTCTAGACG CTGTCTCTGA ATGATTTCTT CTGGTCTGT TGTTCCTCA	4740
AGGCCTGTTA GAATCCCGAT ACGGTCCATT CCTTGACTGA GGAAATAATC GACAACCTGT	4800
TTCATAGCAG TGTA AAAATC CGTGATAATA CAGGTATGTC CCAGGGAAAG TGTATCGCTG	4860
TCTAGAAATA CAAGAGGCTT TTGGTATTCT TCAAAGGCAG AAATCTGAGC TCGACTAAAC	4920
TTTCCGATGC AGAGAATCCC AATCACTTCC TCGCTTAGGG TAAAAGGGTG GTCATTAAAA	4980
TAGCGCAAGA TATCATAGTC CAACTCTTGG GCTCTTTTTT CTATTCCTAG GCGAATCTGG	5040
TAGTAGTAGA GGTGTCCTAG CTCCCCCTGT TCGCTGACCC ATTGGATAAT GGCAATCTTT	5100
TGCTTGGGTT TGTGGGACTC GCCTGTCTTG AGGTGCTTGG TGTAGCCCAG CTCTTCAGCA	5160
ACGGTTAAAA TACGGTGTCT GGTTCCTTCT GTAACAGATA GGCTCTGGTC GCGGTTGAGG	5220
ACGCGGGATA CGGTCGCGAT AGAGACAGAG GCTAGCTGTG CAATGTCTTT TAAGGTAGCC	5280
ATAAATCCTC CTTGATTAGG TTAGTATATC ATGTTTTTCT TCTTTTACT GATATTTTAC	5340
TAAAATTTTA GTAAAAAGGA TTGACCTTGG AAAATTCCTT GGATATAATA GAAAGAAAAC	5400
GATTACAGT TAAGATGGCT TAACGGACAG TCAAAGGAGA ATTCATATGG CACAACATCT	5460

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TACTACTGAA	GCCCTTCGCA	AAGACTTTCT	TGCTGTTTTT	GGTCAAGAAG	CAGATCAAAC	5520
CTTCTTTTCA	CCAGGCCGCA	TTAATTGTAT	TGGTGAACAC	ACAGACTACA	ACGGTGGGCA	5580
CGTTTTTCCT	GCTGCTATTT	CCTTGGGAAC	TTACGGTGCA	GCTCGTAAGC	GTGACGACCA	5640
AGTCTTGCGT	TTCTACTCAG	CTAACTTTGA	GGACAAGGGC	ATTATCGAAG	TGCCTCTCGC	5700
TGACCTCAAG	TTTGAAAAAG	AGCACAACTG	GACCAATTAT	CCAAAAGGTG	TCCTTCATTT	5760
CTTGCAAGAA	GCTGGGCACG	TGATTGACAA	AGGTTTTGAT	TTTTATGTTT	ATGGAAATAT	5820
TCCAAATGGT	GCTGGCTTGT	CTTCTTCTGC	ATCCTTGGAA	CTCTTGACAG	GAGTCGTGGC	5880
TGAGCATCTC	TTTGATTTAA	AATTAGAGCG	TCTCGATTTG	GTTAAAATCG	GCAAACAAAC	5940
AGAAAACAAC	TTTATCGGAG	TAAACTCTGG	CATTATGGAC	CAGTTTGCTA	TTGGTATGGG	6000
GGCAGACCAA	CGTGCTATTT	ACCTAGATAC	TAATACTTTA	GAATACGACT	TGGTGCCACT	6060
TGATTTGAAG	GACAATGTCG	TTGTTATCAT	GAACACCAAC	AAACGCCGTG	AATTGGCGGA	6120
CTCTAAATAC	AATGAACGTC	GTGCTGAGTG	TGAAAAAGCA	GTGGAAGAAT	TGCAAGTTTC	6180
CTTGATATTT	CAGACTCTGG	GTGAATTGGA	CGAGTGGGCC	GTTGACCAAT	ATAGCTATCT	6240
GATTAAAGAT	GAAAATCGTT	TGAAACGTGC	TCGCCATGCT	GTGCTTGAAA	ACCAACGTAC	6300
CCTCAAAGCT	CAAGTAGCAC	TCCAAGCAGG	AGATTTGGA	ACATTTGGAC	GCTTGATGAA	6360
TGCGTCACAC	GTTTCTCTGG	AGCATGATTA	TGAAGTAAC	GGTTTGGAAT	TGGATACCC	6420
TGTTACACAC	GCTTGGGCAC	AAGAAGGAGT	TCTCGGTGCT	CGTATGACAG	GGGCTGGTTT	6480
TGGTGGCTGT	GCcATTGCCT	TGGTTCAAAA	AGATACTGTT	GAGGCCTTTA	AGGAAGCTGT	6540
AGGCAAACAC	TACGAGGAAG	TAGTTGGATA	CGCTCCAAGC	TTCTATATCG	CTGAAGTTGC	6600
AGGTGGCACT	CGCGTCCTTG	ACTAGTCAAA	AGGAGGCTCT	ATAGTGACCT	TAGTAAATAA	6660
ATTTGTAACA	CATGTCATTT	CTGAAAGCTC	ATTTGAGGAA	ATGGATCGAA	TCTATCTGAC	6720
CAATCGTGTT	TTGGCACGAG	TGGGAGAAGG	TGTTTTGGAA	GTTGAGACCA	ATCTGGATAA	6780
ATTGATTGAC	CTCAAGGACC	AGCTGGTTGA	AGAAGCCGTT	CGATTAGAGA	CGATTGAGGA	6840
TAGTCAGACT	GCGCGTGAAA	TCCTTGGTGC	TGAACTGATG	GATTTGGTGA	CTCCTTGTC	6900
AAGTCAGGTC	AATCGTGATT	TTTGGGCAAC	CTACGCCAC	TCTCCAGAAC	AAGCGATAGA	6960
GGATTTTTAC	CAACTCAGTC	AGAAAAATGA	CTACATCAAA	CTCAAGGCCA	TTGCTAGAAA	7020
TATCGCTTAT	CGTGTTCCAT	CTGACTACGG	AGAACTTGAA	ATTACCATCA	ATCTCTCTAA	7080
GCCTGAAAAA	GATCCCAAAG	AGATTGTGGC	AGCCAAGTTG	GTGCAAGCTA	GTAATTATCC	7140
TCAGTGTCTAG	CTTTGTCTAG	AGAATGAGGG	CTACCATGGT	CGAGTTAACC	ACCCAGCTCG	7200

622

TAGCAATCAC CGTATTATCC GTTTTGAAAT GGTGGGTCAG GAATGGGGTT TCCAGTATTC	7260
GCCCTATGCT TACTTTAATG AGCATGTAT CTTTTTAGAT GGCCAGCATC GTCCCATGGC	7320
CATTAGTCGT CAGAGTTTGG AACGTCTGTT GGCTATCGTA GACCAGTTTC CAGGATATTT	7380
TGCTGGATCT AATGCCGACC TGCCGATTGT GGGGGGCTCT ATTCTAACTC ATGATCATTA	7440
TCAGGGAGGC CGTCACGTAT TTCCTATGGA ATTGGCTCCC TTGCAAAAGG CCTTCCGATT	7500
TGCTGGTTTT GAGCAGGTCA AGGCTGGAAT TGTCAAGTGG CCCATGTCTG TCCTACGTTT	7560
GACTTCGGAT TCCAAAGAGG ATTTGATCAA TTTGGCTGAT AAGATTTTGC AGGAATGGCG	7620
CCAGTATTCA GATCCTGCAG TGCAGATTTT GGCAGAGACA GACAGGACAC CGCATCACAC	7680
TATCACACCC ATTGCCCGCA AACGCGATGG ACAGTTTGAG TTGGACTTGG TCTTGCGAGA	7740
CAATCAGACT TCAGCAGAGT ATCCTGATGG TATCTATCAT CCCCACAAGG ATGTCCAACA	7800
TATCAAGAAG GAAAATATCG GCTTGATTGA GGTATGGGC TTGGCAATCT TGCCACCACG	7860
TCTGAAAGAA GAAGTGGAGC AAGTCGCTAG CTATCTTGTA GGAGAAGCTG TTACAGTTGC	7920
CGATTATCAT CAGGAGTGGG CAGACCAACT CAAATCCCAA CATCCAGACT AACGGATAAA	7980
GAAAAAGCCC TTGCAATCGT CAAGGACTCT GTGGGTGCTA TCTTTGCGCG TGTACTTGAG	8040
GATGCAGGAG TCTACAAGCA GACAGAACAA GGCAGACAG CCTTTATGCG CTTTGTGGAA	8100
CAGGTCGGAA TTTTACTAGA CTAGGAGCTT TCTCGG	8136

(2) INFORMATION FOR SEQ ID NO: 76:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10011 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 76:

CCCATAGTGA AGAGTGGCCA TAAGAAGGTC TTCTAGGCTT AATTTAGGTT TTCGTCCACC	60
TTTTGCGTGT TTAAGTTGAT AAGCTGTTTT TAACACAGCT GAACATCTCT TCAAAAGTCG	120
TGCGCTGAAC ACCAACAAGA CATTTAAATC GTGTATCAGT TAGTTGTTTA CTTGCTTCAT	180
CATTCATAGA ACTACTATAC CATGTTTTGT TTCGCAGGAA GTCTAATATT GTCAAATACT	240
GGAACGCTCA TTGCTGGGAT ACGGAATAAG ATTGGCCCAG CTTCGATAAC TGGGATACCT	300
GGTTCAAAAC CAAGGTCTGT TGCAGCGATT GGTGTAAAGA TATCGTAACC TTTCATAAGG	360
TCTTCGTTTA CATCTTTCAC CATAACTGCA TCACAGTGAA CATCGTAACC ACGGTTTGAA	420
AGTTCTTCTT CTAGAGCACT TTTAATTTGG TGACTTGAGT TAACACCTGC ACCGCAGGCA	480



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GCAAGAATTT TAATCATTTG GATTTCTCC GATTTTATTT TTTAATAGAC AAGATTAAGC	540
GGTTGCTTCA GCAATGTAAG CATAAAGGC TTCTGGTTCA GAAATTTTTC ATAGGTCTTC	600
AAGATGACCA TTTCTGTGA AGAAGTCCAT TAACTGAGCA AGAATGTTTCG TTTGACTTGA	660
ACTTGAATTA TTGATGATAA AGAAGAGCAA GGATACTTCT ACTTCCTTAC CTGGCGCAAT	720
CATATTATGG AAAGTCACCG GTTCTCTAA TCGAACAACC ACCACTTTCT CAGCTAGATT	780
ATGAACAATA TCTGTGTGAG GAATCATTAC ATTTGCAAGT CCTTTCCTAG AAATTCATA	840
TATAAACCAAG TTGGAAATGA CTTTTCACGC GTGATCAAGG CTTACAGATA AGTTGGAGTG	900
ACAAATTTCTC GTTCTTCCAA CAAGCTTGCT ACCTGATCAA AAAGTTATTC TTGATTATCC	960
GCTTCTAAGC AAAACACAAG GTTTTGTCA AAGAAATAAT CTAATACCAT AAGGTTTTCC	1020
CTTCTTTCCA TTAACTTTAT GCTATAAGTA TAACACTATA TGAAATCGTT GTTAATTACT	1080
TTCTATTCTT TTTGTCTCT TTTTATAT TTTTGTTTTG TTTATAGTTT GTTATATAAA	1140
AATAAACACA CAAACAAATA CTCCAAGCAT TTTTCTGTTC TAATACTCAA TGAAAATCAA	1200
AGAGCAAAC AGGAAGCTAG CCGCAGTTGT TCAAAACACA GTTTTGAGGT TGTAGATGAA	1260
ACTGACGAAG TCACTCAAAA CATGGTTTTG AGGTGTAGA TGAACTGAC GAAGCAACAG	1320
CCATACATAC GGTAAAGCGA CGCTGACGTG GTTTGAAGAG ATTTTCGAAG AGTATAAAAA	1380
CTAAAAAAGC AGACCATCTA AGCCTGCTTT ACTATTGATT CTTATATAAA TTTCTGTGA	1440
ACAAGGAAAG GCATTCTGA TAACTTATTC TTCATCCATA CTCAAGACGC TGAGGAAGGC	1500
TTCTTGCGGA ACTTCAACTG ATCCGATGGA TTTCTGCGT TTCTTACCAG CTTTTGTGT	1560
TTCAAGGAGT TTACGCTTAC GAGAAACGTC ACCACCATAA CATTTAGCAA GTACGTTCTT	1620
ACGAAGGGCC TTGATATCAG TACGAGCGAC AATCTTGTGT CCAATAGCCG CTGGATTGG	1680
AACTTCAAAT TGTGCGGAG GGATGATTTT CTGAGTTTA TCAACGATGA GTTTCCCACG	1740
TTCGTAGGCA AAGTCCTGT GAACGATAAA GCTGAGGGCA TCCACCTTAT CTCCATTGAG	1800
AAGAATATCC ATTTTCACCA GCTTAGATGG GCGATATTCT GACAATTCGT AGTCAAAGCT	1860
TGCATAACCA CGTGTGAAG ACTTAAGTTT ATCAAAGAAG TCAAAGACAA TTTCAGCAAG	1920
AGGAATTTGA TAGATAACAT TGACACGGT ATCATCAATA TAGTCCATAG TCACAAAGTC	1980
CCCACGCTTA CGCTGAGCTA GCTCCATTAC TGCTCCGACG AACTCCTGTG GTACCATGAT	2040
TTGCGCCTTG ACATAAGGCT CTTCATGGT CGCAATCTTA GTTGGGTCTG GAAACTCAGA	2100
TGGGTTAGAC ACATCCATAG ACTCACCCTG GGTCAAATTA ACTTTGTAAA TAACAGACGG	2160
AGCTGTCATG ATGAGGTCAA TATTGAAGTC ACGCTCTAAA CGTTCCTGGA TAACATCCAT	2220

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ATGGAGAAGT	CCAAGAAATC	CACAACGGAA	ACCAAATCCA	AGTGCCTGAG	ATGTTTCTGG	2280
TTCAAACCTGA	AGACTAGCAT	CATTTCAGTTG	CAATTTTTTCA	AGcGCTTCAC	GCAGGTCATT	2340
GTAATTGTTT	GATTCGATTG	GGTAGAGACC	CGCAAAGACC	ATAGGATTCA	TCTGCTTATA	2400
ACCATGTAAT	GGTTCTGCCG	CAGGATTGGT	TGCCAAGGTA	ACGGTATCAC	CCACACGAGT	2460
ATCCTGAACC	GTCTTGATAG	ACGCCGCAAT	GTAACCAACA	TCACCAGTCG	CAAGGAAATC	2520
ACGACCAACC	GCTTTTGGTG	TAAAAATACC	GACTTCGGCC	ACATCAAAGG	TCTTACTATT	2580
GCTCATGAGC	TGAATCTTAT	CACCAGGTTT	GACCACCTCG	TCCATGACAC	GCACTTGGAG	2640
GATAACCCCA	CGGTAAGCAT	CGTAAACAGA	GTCGAAAATC	AAGGCCTTAA	GTGGCGCCGT	2700
CACATCACCC	GTTGGTGCTG	GTAATTTTTTC	TACAATTTGC	TCGAGGATTT	CTTCAATCCC	2760
AATACCAGCC	TTGGCAGAAG	CCAAAATGTC	TTCCTGGCA	TCCAAACCAA	TCACATCTTC	2820
AATCTCTGTA	CGCACGCGCT	CCGGATCTGC	AGCCGGCAGG	TCAATTTTAT	TAATGATAGG	2880
CATGATTTC	AAATCATTAT	CCAAAGCCAG	ATAAACGTTG	GCAAGAGTTT	GAGCCTCAAT	2940
TCCTTGAGCC	GCATCGACCA	CCAAAATAGC	ACCCTCACAG	GCAGCTAGCG	AACGTGAAAC	3000
TTCATAGGTA	AAGTCAACGT	GCCCTGGTGT	GTCAATCAAG	TGGAAAATAT	AAGTTTCCCC	3060
ATCTTTTGCA	GTGTAATTCA	ACTCGATGGC	ATTCAACTTA	ATAGTAATTC	CACGTTCCCG	3120
CTCTAGCTCC	ATGCTATCCA	AAAGCTGGGC	CTGCATTTCA	CGACTTGAAA	CCGTCTCTGT	3180
TTTTTCCAAA	ATGCGGTCTG	CTAGAGTTGA	TTTTCCGTGG	TCAATATGGG	CGATAATAGA	3240
GAAGTTACGG	ATCTTCTCCT	GTCGTTTTTT	CAATCTTCT	AAGTTCATGA	TTCTCTTCCT	3300
TTCAGGGTAT	CTATTTATTA	TAAATTGTTT	TTGATATTTT	GACAAGACCA	TACCCTGCTA	3360
GGAGTACTAA	TCTTCAGCGA	CAAAGCCGTC	ATTTTCGATA	AAGTGGTGTT	CTGTCAATTCC	3420
TTGGTCTGTA	AAGACAATCC	CGTGAAGGAC	ACCACCATAA	ACAGCTCCTC	CATCCATTCC	3480
AATCTTGCCA	TCTTCTGTAG	TCCAAAGCTC	AGATGTACCG	CGTTCTTGCT	GTAACAAACC	3540
ATAGACCGGT	GTATGACCGA	AGACAATGGT	TTTTCCAGTA	TGATTTTCAG	CTCCGTGGAA	3600
TGGTTTTCTA	AGCCATACTT	TTTTATAATC	TGTTGTTTCA	TGCCAGTCGT	CCAAGGTCAA	3660
ATCAATACCT	GCGTGAACAA	AGATATACTT	GTCTGTCTCT	ACTACAAATG	GCATTTGACG	3720
AATGAATTCG	ACCAAGTCTG	CCGCTTCAGC	GgCAACCCGC	TTGGCATCTT	CTACTCCATC	3780
AACTGGTGCA	TCCAAGGGAC	GACCTAGGAT	AGAGTTAATG	GTTGTATCTC	CACCATTGCG	3840
ACTATAATGG	TCATAACTTT	CTTCTGGGTC	ATCTAGCCAA	GTCAAAAACA	TATACTCGTG	3900
GTTTCCGGAC	AAACAGATAG	CCCCTTGATT	GTCCACCAAG	TCCTTGACCA	TTTCAAGAAC	3960
ACGGTGACTA	TCCTCACCTC	TGTCAATCAA	ATCACCTAGA	AAGAGCAACT	GGGGCTGACC	4020

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ATCCCAGGTT	TTGAGAAGGT	CTTCCAGCAT	CCCAGCTTTT	CCGTGAACAT	CTCCAATTAC	4080
ATAATAATCT	GTCATCTTAT	TTCTCCCTGT	TTCTCAACAA	TTCTCTTGCT	TGCGTCAGGG	4140
CTGCTTCTGT	CACATCATCA	CCTGCCAACA	TCTTGGCAAC	TTCTCTCCACT	CGCTCTTCGA	4200
CCGTCAAGAG	ACGAACAGTC	GAAACCGTTG	AATGGTCATT	ACTAATCTTC	TCAATAAAGA	4260
ATTGATAATC	TGCAATCGCA	ATTACTTGTC	GCAAAATGGA	GATAGCCAAA	ACCTGACCAT	4320
GCTGACCAAT	TTTATGAATT	TTCTGAGCAA	TAGCTTGAGC	AACACGACCT	GAAACTCCCG	4380
TATCCACCTC	ATCAAAGACA	ATGCTAGTCT	TGCCTTCTTT	ACGTGAAAAG	GCAGACTTAA	4440
TGGCTAACAT	GAGACGAGAT	AATTCCTCTC	CAGAAGCAAC	CTTAACCAAG	GGTTTAAAGT	4500
CTTCTCCAGG	GTTGGTTGAA	ATATAAAACT	CAACCATTTT	ATTTCCCTCA	CGACTGAATT	4560
TTCCCTTACT	AAAACGAACC	TGAACTGGG	CTTTTTCAT	ATAAGATCT	TGCAGTTCTT	4620
GTTTAATCTC	AGCTTCGAGT	TGCTGAGCCA	AATTATGACG	AGCAGAAGCA	AGTTGACCTG	4680
CCAAATTGAC	AAGATTGACT	TCCAACCTCT	TAAGCTCTGC	TTCCATGTCC	TCAGACGAAA	4740
GATTATTGCC	TGTCAAGAGA	TTGTATTCTT	CCGTAATCTT	GGCAAAATAA	AGCAAAACAT	4800
CATCAACAGT	CCCACCATAC	TTACGAGTAA	TAGTATGAAG	GAGGTCCAAA	CGATTCTCAA	4860
CCTGCATCAG	GCGATTGCCA	TCAAAATCAA	GGTCTTCAAT	GATAGCTTCC	AAACGTTTGC	4920
TAATGTCTTC	TAAACATAG	TAGGTCTCAG	ACAGATAGCT	TGAAATTTC	CGGTATTTCAG	4980
GATCATACTC	TTGACACTT	TCCATGTCAT	TCATAGCTGA	ACGAACATTG	GCCAGACTTG	5040
AAAAATCTTC	ATTGTCCAAC	ATACTGTAGG	CATTGGTCAG	TGTATCCGCA	ATATTTTGT	5100
GGTTGAGGAG	TTTATCTCGC	TCTTGATTGA	GAGCCAAGTC	TTCTCCAGCC	TGCAAGTTTG	5160
CTGCCTCAAT	CTCTGCCATT	TGAAATTCCA	ACATTTCGAT	ACGTGCCTTG	TGTTCTGT	5220
GGTTTTCTCT	GACTTCCAGA	ACCTGCTTGC	GCATTTTCCG	ATAGGCATCA	AAACTCGTTT	5280
GATAGGTTTC	TTTCAAGTCC	CAAAAAGCGG	CATCACCAAA	TTCATCCAAC	ATCTGGATAT	5340
GCAGTTGGGG	ACGCATTAAC	TCCTCATGGT	CATGCTGACC	ATGAATATCT	ACAAGATGTT	5400
GCCCAATAGC	TCGCAAAACA	GACAGATTAA	CCATCTGACC	ATTTACACGG	CTGATACTAC	5460
GACCATTTTG	CAAGATTTCC	CGACGGATGA	TAATTTTCATC	ACCTAATTCT	AAACCTTGCT	5520
CATCAAAAAT	TTCTGTAAA	AGACGACTAT	TCTCAACTGA	GAAAAGCCCC	TCAATCTCTG	5580
CCTTTGGTGC	ACCATGACGA	ATAACATCTG	TCGTGCGACG	AGCTCCCAAC	ATCATATTCA	5640
TGGCATCAAT	GATAATCGAC	TTCCCTGCAC	CCGTTTCACC	AGTCAGGACA	GTCATCCCCT	5700
TTTCAAAAT	GAGGGAAATA	GCCTCAATAA	TGGCAAAGTT	TTTTATCGAA	ATTCAAGTA	5760

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ACATATAGAC	CTACCAATTT	TTTACTTGTT	CAAAGATTTC	CTCTGCTAGA	CTTCCACTTC	5820
TGGCAATGAC	TAAAATCGAG	CTATCATCAG	TCAAACAGCT	AAAAATCTTG	TCTGCAAAAG	5880
TCTCGATTAA	CTGAGCTTTT	ACAAAAGCCG	TATTTCTCTG	AATAACTTGG	AGATTGATCA	5940
TCTTATCCAT	CAATTCAGCC	GATTCGATAT	TGTCTTCAGC	CAGTTGCAGA	CTTTTACGA	6000
TTGATTTTGG	CAATTCGTAG	ACATAGGTGT	TGTCTCTCAA	AGGAATTTTG	ACAATACCTA	6060
ACTCTTTGAT	ATCTCGGGAT	ACCGTCGCCT	GAGTGGCAGT	GATACCTGCT	TCTTTCAAAT	6120
GTTCACAAT	TTCTTCTTGC	GTGCCGATTT	GATAATCTGT	CACCAATCTT	CTAATTTTTT	6180
CAAGTCTCTC	TTTTTTATTC	ATTTTAAAT	TGACTATGCG	CCCTCTCTAC	TGCTTCTTTA	6240
ATCTCAGCAA	GAATCTGATT	GCTTGCTGAC	TTTTCTTTTT	TCAAATACGC	TAAAAATTCA	6300
ATATTTCCAT	GTCCACCTTG	GATGGGAGAA	AAGTCCAAGC	CAAGGACTGA	AAAACCTACC	6360
TCTACTGCCA	TAGCTGTTAC	AGATTCAAGG	ACATTCTGAT	GAACCTTAGC	ATCTCGAATA	6420
ATTCCATTTT	TCCCAATCTG	CTCACGTCCT	GCCTCAAAC	GAGGTTTGAC	AAGTGCTACC	6480
ACCTGACCTT	GATCAGCCAA	GACACGGTGC	AAGGCTGGCA	AAATCAGACT	AAGGGAAATG	6540
AAACTCACAT	CAATACTGGC	AAAGCTCGGC	TCCTGCTCGA	AATCAGTCTT	TTCAGCATAG	6600
CGGAAATTGA	ACTGCTCCAT	GCTGACAACT	CGTGGGTCTT	GGCGTAATTT	CCAAGCCAAC	6660
TGATTGGTAC	CAACATCGAC	TGCAAAGACC	AACTTGGCAC	TATTCTGTAG	CATGACATCG	6720
GTAAACCTC	CAGTAGAGGC	CCCGATATCA	ATCGTAGTCG	CGCCATCCAC	CGACAAATCA	6780
AAGACCTGCA	AGGCCTTTTC	CAGTTTCAAA	CCACCACGGC	TGACATACTT	GAGTTTCTCC	6840
CCCTTGAGTT	TTAATTCGGT	GTCATCTGGA	ATTTTCTCTC	CTGGCTTGTC	AAACCGTTCT	6900
CCATTAAAGGA	CTGCTACGAC	TAGGCCAGCC	ATCACACCTC	GCTTGGCCTG	CTCTCTCGTT	6960
TCAAACAACC	CCTGTTTATA	AGCTAGTACA	TCCACTCTTT	CCTTAGCCAT	TGATTCTCAA	7020
ACTTTCTACT	ACACTTACAA	TCGATTCTGT	TTCAAAGGGA	AGCTGCTGGG	CAATTTCTTC	7080
TAATTTTTC	TTAGCTTGAT	CCAGGGTTTG	GTTACAAAAG	GCAATGGACT	CTTCCAAGCC	7140
CAACAGGGCA	GGATAGGTTG	ATTTTCTGTC	CTGCAGATCC	TTTTGAGGTG	TCTTGCCGAT	7200
TTCTTCAAAA	CTAGCTGTCA	CATCCAGTAC	ATCATCTCTG	ACTTGAAAAG	CAAGTCCAAT	7260
CAATTACCCC	ACAGTTTTC	GCTTCACCTG	CATTTCAGGT	GACAATTCAG	CTATAATAGC	7320
TGCCGCTTGG	AAGGGATAGG	CTAGTAACTT	CCCAGTCTTA	TTGGCATGAA	TAGTCTGAAG	7380
TTCTTCCAAA	GACAAGTGCT	GGTGTTCGCC	CTCCATATCC	AAAACCTGCC	CTGCTACCAT	7440
ACCCAGACTA	CCTGAAGCAA	GGGATAAGTT	GGCAATCAAG	TCCACCTTAA	TCTGACTTGG	7500
CAAATCTGCC	TGCGCAATCA	AGGCATATGA	GTCTAAGAAT	AAGGCATCTC	CAGCCAAAAT	7560

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GGCCATAGCT TCACCGAATT TCTTGTGATT GGTAAACCGC CCTCTTCGAT AATCGTCATC	7620
ATCCATAGCA GGAAGGTCAT CGTGAATCAA GCTCCCTGTA TGAATCATCT CTAAGGCAGT	7680
AGCTACCTGC GCGTGAGCAG GTTTGATGGT AACCTGCAAG GCTTCCAGAA CTTCTAACAA	7740
GAGAAAAGGC CGAATACGCT TGCCACCAGC ATGAATAGAA TAGAGAACAG ACTCCCGTAA	7800
ACTAGAGGCA AACTGCTGGT CTCCATAAAA ATCTTCCAAA GCCGACTCGA CAAGAGCTAA	7860
TTTTTCTTGC TTTTTCATTC AAAATCACTT TCTGTCCGT CTTCTTGCAT GACCTTGACC	7920
AAGGTC'TTT CAGCCTTGTC CAGCGTAGCT TGGAGCTCTT TTGACAAGAC CATGCCCTTT	7980
TGAAAGGCAG TAATCGCATC TTCCAGAGCA ATTTCACCAT TTCCAAACT TTGGACAATG	8040
GTTTCCAGTT CTGCTAGATT TTCTCTAAAT TTCTTTTGT TTGACATCTT TAACCTCTAA	8100
TTCTACTTGA CCATCTCGCA TCAAAAGCGT TACTTGGTCT TTTTCTTCA AACTCTCAAC	8160
CGAATCTACA ACGGACTCTT CTTTTTTGAC AATAGCATAA CCACGCGCCA CGATTGCGCT	8220
AGTATCCAAC ATGAGCAAAG CTTCGAAAG TCGCTTGGCC TCAGCAACCT TGGCGTCATA	8280
AACTAACGCC ATTTGGCTAC CTAAGAGCTT GTCCAACGT CCTAAACGGT CTTGATAGCG	8340
TTGGATTTTG GTAACAGGTG ATAATTGTAC TAATTGATGA GTTCTTGCTT GAACTAATTG	8400
TTTGTTATCA GAAATCCGAG TTCGCAAACT TTGTTTCAA CGCAGTTGCA GTTGGTCCAA	8460
GCGTTGCAAA TAACCGTCAT ACAAGCGCTC AGGTTGTCTA AAGATAACAG ACTGACTGCA	8520
TTTTTTCAA GCCTCTTGT TCTTAGATAG AACATTTCCG ACTGCCGTTA CCATCCGTTT	8580
TTCTTGATTT TGCAAATGAG CTAATACATC CAACTTGGTC ACAGGTGTTG CCAGTTCAGC	8640
CGCCGCTGTT GCGTTGCAG CGCGTCGATC TGCCACAAAA TCTGCCAAGG TCACATCCGT	8700
CTCATGCCCC AACTAGAGA TAACTGGCAA ACGAGATTCA AAAATAGCTC GTACCACAAT	8760
TTCTTCGTTA AAGGCCAGA GATCCTCAAT AGAACCACCT CCACGACCAA TAATGAGCAA	8820
ATCCAAATCG TCCCGTTGAT TAGCACGCGC AATATTCTA GCAATTTCTT CCGCAGCCCC	8880
TTCACCTTGA ACCTTGGTCG GATAAAGAAG GATGTCAACA CCTGGGAATC GCCTGCTGAC	8940
GGTCGTGATA ATATCTCGAA TAACGGCTCC ACTACGGCTG GTTACTACAC CAATTCTCTT	9000
AGAAAATTGG GGCAGAGCTT GCTTGAAGCG TTCTTGAAAC AGGCCTTCTT CTGTCAATTT	9060
TTTCTTAAGT TGTTCAAAC GAATCGCAAG CGCCCCAACC CCATCAGGCT CAGCTTTTTC	9120
AATGATGATG GAGTAGCTAC CACTTGGTTC ATAGACCTGT ACACGCCCAA TCACATTGAT	9180
CTTCATTCCT TCTTCCAGGT CAAACCTAA TTTCTGATA ATCCAGACC AGATGGTCGC	9240
TTGAATAACT GCATGGTCAT CCTTTAGGGA GAAATATTGG TGAGTAGGTC GTTTACGAAA	9300

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GTTGGAAACT TGACCAGTTA AATAGACCCG TTCCAAGTAT GGGTCTTTAT CGAATTTTCAT	9360
TTTCAGATAC TTGGTCAAAG TTGTTACCGA TAAATACTTT TCCATCTCCA CCTACTATTC	9420
ATTTACTTGC TCTTTCATGG GTATTATTAT ACCAAAAATA TGCCTAAAAA TCTCCATTTA	9480
TGTACCATTA TGAGGAAAAA ATAGAAAAAG GAGGCAAGGC CTCCACATGT GATTATTTGC	9540
TGTTTCGAGC TTCTTCCAAA ATCTTTGCAA TCTTGGTCGT CAACAGGTCG ATAGCCACGG	9600
TATTGCTAAC CCCTTCAGGA ATGACGATAT CAGCATAACG CTTAGTTGAC TCGATAAACT	9660
GGTGGTACAT TGGTTTGACC ACACCTAAGT ACTGGTTAAT AACGCTATCA AGGCTACGGC	9720
CACGCTCCTC CATATCACGC TTGATACGAC GAATAATGCG CACATCGTCA TCCGTATCCA	9780
CAAAAATCTT GATATCCATC AAATCGCGCA GACGCTTGTC CTCCAAGACC AAAATACCTT	9840
CAACGATAAA GACATCTTGA GGTTCCTGAC GATAGGTCTT GCTACTCCGT GTATGCTCTG	9900
TATAGTCGTA GGTCGGGATG TCCACCGGAC GCCCTGCCAA CAATTCCTTA ATCTGCTCGA	9960
TCATCAAGTC TGTATCAAAG GCAAAGGAT GGTTCATAGTT GGTTTTGACG G	10011

## (2) INFORMATION FOR SEQ ID NO: 77:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 5365 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 77:

CGTGTGGTCT TAAAAATAGA AGACAAAGAA CAAACTGTTG GAGGCTTTGT CCTTGCAGGC	60
TCAGCCCAAG AAAAAACCA AACAGCTCAA GTTGTGGCTA CTGGACAAGG TGTTCGTACC	120
TTGAACGGTG ACTTGGTTGC TCCAAGTGTT AAAACTGGAG ATCGTGTCTT AGTTGAAGCC	180
CACGCAGGTC TTGATGTCAA AGATGGCGAT GAAAAGTACA TCATCGTAGG CGAcTAACAT	240
TTTGGAATC ATTGAGGAAT AGAAGGAGAA AGTAAGTATG TCAAAAGAAA TTAAATTTTC	300
ATCAGATGCC CGTTCAGCCA TGGTTCGTGG TGTCGATATC CTTGCAGACA CTGTTAAAGT	360
AACCTTGGA CCAAAGGTC GCAATGTCGT TCTTGAAAAG TCATTGGTT CACCCTTGAT	420
TACCAATGAC GGTGTGACCA TTGCCAAAGA AATCGAATTG GAAGACCATT TTGAAAATAT	480
GGGTGCTAAG TTAGTATCAG AAGTAGCTTC TAAACCAAT GATATCGCAG GTGACGGAAC	540
TACGACTGCA ACAGTCTTGA CCCAAGCTAT CGTCCGTGAA GGAATCAAAA ACGTCACAGC	600
AGGTGCAAAT CCAATCGGTA TTCGTCTGG GATTGAAACA GCAGTTGCCG CAGCAGTTGA	660
AGCTTTGAAA AACAACGCCA TCCCTGTTGC CAATAAGAA GCTATCGCTC AAGTTGCAGC	720

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CGTATCTTCT	CGTTCTGAAA	AAGTTGGTGA	GTACATCTCT	GAAGCAATGG	AAAAAGTTGG	780
CAAAGACGGT	GTCAATACCA	TCGAAGAGTC	ACGTGGTATG	GAAACAGAGC	TTGAAGTCGT	840
AGAAGGAATG	CAGTTTGACC	GTGGTTACCT	TTCACAGTAC	ATGGTGACAG	ATAGCGAAAA	900
AATGGTGGCT	GACCTTGAAA	ATCCGTACAT	TTTGATTACA	GACAAGAAAA	TTTCCAATAT	960
CCAAGAAATC	TTGCCACTTT	TGGAAAGCAT	TCTCCAAAGC	AATCGTCCAC	TCTTGATTAT	1020
TGCGGATGAT	GTGGATGGCG	AGGCTCTTCC	AACTCTTGTT	TTGAACAAGA	TTCGTGGAAC	1080
CTTCAACGTA	GTAGCAGTCA	AGGCACCTGG	TTTTGGTGAC	CGTCGCAAAG	CCATGCTTGA	1140
AGATATCGCC	ATCTTAACAG	GCGGAACAGT	TATCACAGAA	GACCTTGGTC	TTGAGTTGAA	1200
AGATGCGACA	ATTGAAGCTC	TTGGTCAAGC	AGCGAGAGTG	ACCGTGGACA	AAGATAGCAC	1260
GGTTATTGTA	GAAGGTGCAG	GAAATCCTGA	AGCGATTCTT	CACCGTGTGT	CGGTTATCAA	1320
GTCTCAAATC	GAAACTACAA	CTTCTGAATT	TGACCGTGAA	AAATTGCAAG	AACGCTTGGC	1380
CAAAATTGTCA	GGTGGTGTAG	CGGTTATTAA	GGTTGGAGCC	GCAACTGAAA	CTGAGTTGAA	1440
AGAAATGAAA	CTCCGCATTG	AAGATGCCCT	CAACGCTACT	CGTGCAGCTG	TTGAAGAAGG	1500
TATTGTTGCA	GGTGGTGGAA	CAGCTCTTGC	CAATGTGATT	CCAGCTGTTG	CTACCTTGGA	1560
ATTGACAGGA	GATGAAGCAA	CAGGACGTAA	TATTGTTCTC	CGTGCTTTGG	AAGAACCCGT	1620
TCGTCAAATT	GCTCACAAATG	CAGGATTTGA	AGGATCTATC	GTATCGATC	GTTTGAAAAA	1680
TGCTGAGCTT	GGTATAGGAT	TTAACGCAGC	AACTGGCGAG	TGGGTAAACA	TGATTGATCA	1740
AGGTATCATT	GATCCAGTTA	AAGTGAGTCG	TTCAGCCCTA	CAAAATGCAG	CATCTGTAGC	1800
CAGCTTGATT	TTGACAACAG	AAGCAGTCGT	AGCCAATAAA	CCAGAACCAG	TAGCCCCAGC	1860
TCCAGCAATG	GATCCAAGCA	TGATGGGCGG	GATGATGTAA	GCTTCTCTATA	GAAAACAACT	1920
TATAAAAAAC	ACAAAAGGAG	GGAATGACTA	ACCCTTCTTT	TTATAGGCTC	TTTGTCAACT	1980
GTAGTGGGTT	GAAGTCAGCT	AAGCTCGAGA	AAGGACAAAT	TTCGTCCTTT	CTTTTTTGAT	2040
GTTCAAAGCG	ATAAAAATCC	GTTTTTTGAA	GTTTTTCAAAG	TTTCGAAAAC	CAAAGGCATT	2100
GCGCTTGATA	AGTTTGATGA	GATTATTGGT	CGCTTCCGGT	TTGGCGTTAG	AATAGTGTAG	2160
TTGAAGGGCG	TTGATAATCT	TTTCTTTATC	TTTGAGGAAG	GTTTTAAAGA	CAGTCTGAAA	2220
AATAGGATGA	ACTTGCTTAA	GATTGTCCTC	AATAAGTCCG	AAAAATTTCT	CCGGTTCCTT	2280
ATTCTGAAAG	TGAAACAGCA	AGAGTTGATA	GAGCTGATAG	TGATGTTTCA	AGTCTTGTA	2340
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ATAAAATCGC	TTATCACTCA	GTTTACGGCT	ATCCTGTTGT	ATGAGCTTCC	AGTAGCGCTT	2460

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GATAGCCTTG	TATTCATGGG	ATTTTCGATC	CAATTGGTTC	ATAATTTGAA	CACGCACACG 2520
ACTCATAGCA	CGGCTAAGAT	GTGTACAAAT	GTGAAAGCGA	TCCAACACGA	TTTTCAGCATT 2580
CGGGAGTGAA	ACAGTCTGGG	AGACTGTTC	AGCCTGAGCC	TAGAAATTTG	AAAGCGAAGC 2640
TGTTTAGCCA	AGTCATAGTA	AGGACTAAAC	ATATCCATCG	TAATGATTTT	CACTTGACAA 2700
CGAACGGCTC	TATCGTAGCG	AAGAAAGTGA	TTTCGGATGA	CAGCTTGCTG	TCTGCCCTTCA 2760
AGAACAGTGA	TAATATTAAG	ATTATCAAAA	TCTTGCGCAA	TGAAACTCAT	CTTTCCTTTA 2820
GTGAAGGCAT	ACTCATCCCA	AGACATAATC	TTTGGAAGCC	GAGAAAAATC	ATGCTCAAAG 2880
TGAAAGTCAT	TGAGCTTGCG	AATGACAGTT	GAAGTTGAAA	TGGCCAGCTG	ATGGGCAATA 2940
TCAGTCATAG	AAATTTTTC	AATTAACCTT	TGAGCAATCT	TTTGGTTGAT	GATACGAGGG 3000
ATTTGGTGAT	TTTTCTTAC	CAGGGGAGTC	TCAGCAACCA	TCATTTTGA	ACAGTGATAG 3060
CACTTGAAAC	GACGCTTCT	AAGGAGAATT	CTAGAAGGCA	TACCAGTCGT	TTCAAGATAA 3120
GGAATTTTAG	AAGGTTTTTG	AAAGTCATAT	TTCTTCAATT	GGTTTCCGCA	CTCAGGGCAA 3180
GATGGGGCGT	CGTAGTCCAG	TTTGGCGATG	ATTTCTTGT	GTGTATCCTT	ATTGATGATG 3240
TCTAAATCT	GGATATTAGG	GTCTTTAATA	TCGAGCAGTT	TTGTGATAAA	ATGTAATTGT 3300
TCCATATGAA	TCTTCTAAT	GAGTTGTTTT	GTGCTTTTC	ATTATAGGTC	ATATGGGACT 3360
TTTTTTCTAC	AACAAAATAG	GCTCCATAAT	ATCTATAAGG	GATTTACCCA	CTACAAATAT 3420
TATAGAGCCG	AAAATTCACA	TCTAATATAT	GCAGACTACT	TTGAAATGAA	ATTAAAAAAA 3480
TTATTAAAGG	ATGACACAAA	AGTTTTTGAA	AAATCTACAT	TCAAATTTGT	AGAAGGATAT 3540
AAAATATACC	TGACAGAATC	TAAAGAATCT	GGAATTAAAC	AAATGGACAA	TGTCATAAAA 3600
TATTTTGAGT	TTATTGAATC	TAAAAGTATT	GCTTTATATT	TTCAAAAACG	ATTAAATGAG 3660
CTGATAGATT	AAATAGCATT	TTCTCTGTTG	AGATATTGTT	TTTAAAATAT	TGTACTAAAT 3720
GATTGATGCT	ATGTGGAAAT	ACAAAAAAAT	GTTTTTGATA	CGAAGTTGAC	CTGTATTTTT 3780
TATACTAATC	ATTTTCGTAT	TTTTTGATAT	AAACGATATA	AGTTTGTTGT	AAACTTACAA 3840
GGAATAAAGA	CATTAAAAAA	TAACAGTATA	TCTATTGTT	TTATATATTT	TACGAATTCT 3900
GCATAAATCT	CTTCTAGTA	ATGTGTTGTA	ACTCTGCTAT	AATAGATTTA	TTCTTTTTTG 3960
TGTTTACACA	ATTTATTTTA	TAGTACAAA	AAAGGTCAGG	ATTTTGTTCC	TGACCTTTGA 4020
CAACTTTACC	GATTCTTTAG	TTCTACATAG	CGCTTGTAAC	AAATGTTTAC	ATAGGCTTCT 4080
GAGAAAGGAC	CACGTCCATT	GTTAATCCAA	TCAACAAGAA	TTTTGACATG	TTCTTTTAAA 4140
ATATAGTCCA	AGTCATCAGA	ATAATTCATT	TTGCGTTTGT	GACGCTCGTA	CTCTTCAACG 4200
TCCAAGAGAC	GTTTTTCCCC	ATCTGTAAAA	ATTTTAACAT	CCAAATCGTA	ATCAATATAC 4260



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TTCAGTGCTT CTTCATCCAG ATAGTAGGGG CTAGCCATAT TGCAATAGTA AGAAGTTCCA 4320
TTATCACGAA TCATGGCAAT GATATTAAAC CAATATTTCT TGTGAAAGTA AACAATAGCC 4380
GGTTCTCGAG TGACCCAACG ACGACCATCA CTTTCGGTAA CAAGTGTATG ATCGTTGACA 4440
CCAATAATGG CGTTTCTGT TGTTTTGTAGT ACCATGGTGT CCCGCCAAGT TCGGTGGAGA 4500
CTCCCATCAT GCTTATAACT TTGAATTGTA ATAAAGTCGC CTTCTTTTGG AAGCTTCATA 4560
ACTAACCAAC TTTCTACAAT TTATAAGTTT ATCATTTACT ATTGTACCAT AAAATTACCC 4620
AAAAATCTGTG AATTTCACTT GGAAATATTA AAGATATTCT CTAAGAGCGC TTGCTATATC 4680
CGAAAAATCG TAGCCCTTTC GTGCTAAAAC TTGAGTTAAA CGCTGCTTCA GTTCGTATCC 4740
TTCATACTTT CGGGCATACT TAGTATATTG CTTATCAAGT TCCTTGAAGA TGAGTTCCTG 4800
AGTCGTTTCT TCATCAACTT GACTATCCAA TTCGTCAAAG GCAATTTTAG CATCAAAATA 4860
AGAGAAGCCC TTGTTAGTCA AGTTCGGAT AATCTTATCT TGCAGGGCAC GAGCTGGAAG 4920
TTTTCCCTCA TATTTTTTCA ATAGTTTATT GGCTACACGT TGAGCAACTT CCGAAAAATC 4980
AAAATCATTC AAGATTCTT CTATAGTAGA TTTTGAAATT CCTTTTGTG CTAATTTCTG 5040
AGTCAGTACA TAAGGTCCTT TGTCTCCTGA AAGTTGATTG GCATTGATGA TAGCATAAGC 5100
GTACTGGCTA TCATTAATCC ACTTCTCTTC TTTAAGATTA GCAATGACTT GAGAAACGAT 5160
GTTTTCATTA ATATCATATT TTTTCAGATA TTCTCTGACC TCTTTTTCAG TACGTGCTTT 5220
AAAGGATAAG TGGTAGAGGG CCAGATTCTT ACCATAAGAA AATTGAGCAA AGTCTTGAAT 5280
CTCTTTCAAT TCCTCTCGC TTATCACCTT ATCTCTCGAT AACATAAAAC GAACAATTGT 5340
GTCTTCGGTG ATATAGCATT TGTCG 5365

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(2) INFORMATION FOR SEQ ID NO: 78:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 3636 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 78:

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TTTCCAGAAA GAAGTTGAGT AAAGTCTTTA TCAAAGAGAA TGACTTCCGT ATTGGAAGTG 60
ACATTAGGTT TTATTTCTAC TTTACTAGCG TCCGCCCTAG CATTTTCTAA ATCTTTAATC 120
TCTTCTGTTG CCCTATTAT AGCCAGCTGA ATAAGTCTT GAGGATTTTC ACTCAGTCCA 180
TGAAGCTTAT CGTCCACCGA AGTATAAAGA CTCGAATGCA TGACTTGTA AATAATCAGA 240

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GTCATTGTAG	AAAAAATCAG	GGTGAAGACA	CCGAAGTTGC	GGATAAAATA	ACTAAAGTCA	300
TCCGCATACC	ATGTTTTTTT	AAGTTTACTG	AACATCTTTT	AAAAGATACC	CAACACTACG	360
CAAAGTTTGC	AAATTCTCTG	CAAAAGTGGT	TCCCTTTAAT	TTCTTACGGA	CTTTTGAAAC	420
ATAGACTTCG	ACAACCGAAA	TCGTTGTATC	ACTATCAAAT	CCCCATAGAC	GGTCAAAAAT	480
CTGCGTCTTA	GGCAAAATCA	CATTTTGATT	TTGAAGGAAA	TAAACTAGTA	AATCGAACTC	540
TTTCCCCAGC	AATTCGACAG	GAGTATCTTC	AACTTTAACG	GTATTGGTTG	ATAAATTAAC	600
CACGATATTC	CCATAAGTCA	AGGTGTTTTT	ATTAAACTTC	CCTGAACGTT	TGAGAAGGGC	660
CTGAATCCGC	ATTTTAAGTT	CTTCTAGGTA	GAAAGGTTTG	GTCAGATAAT	CATCCGCTCC	720
CAGTTCAAAT	CCATGTCCCT	TGTCATCCAA	ACTTTCCTTG	GCAGTCATAA	TCAGAACTGG	780
TGTCGTAATT	CCCTTTTCAC	GCAATTCTTT	TAAGACTTGG	AAACCATTTT	TTTCTGGCAA	840
CATCAAATCC	AGCAAAATCA	AGTCATAGAC	ACCACTCTCA	GCTTCGTAGA	GACCTTCTTC	900
TCCATCAAAT	ACCTGCATAA	CATCCGCAAA	ATCGTCTAAA	AAGTCAAATA	CTGAATTTGA	960
CAGACCTAGG	TCATCCTCAA	CCAATAAGAT	TTTTATCATG	AGAAACTCCT	CCTTATTAAA	1020
ACTATTATAC	CAAATTTGCC	TTAAAAAATA	CTCAACTCTC	TGCATTTTAC	ATGAGATAGC	1080
TGAGTTTCT	TTTTATTTTA	GGCTTATTTA	TGCATTTCCG	TATTGAAGAA	CAACTGCTTC	1140
GACTGCAGCT	TTTTCACGGC	TAATCAAGTC	AACACGCGCT	GCAATTTCTT	TGATTCCCAT	1200
ACCGATGTTA	CGGCTAAGAG	CAAGGTCAGA	AAGTTGCGGT	TCAAAGAACT	CCTTGTATTC	1260
CGCCAAGCGT	TGCTGAGTCT	TAAATACATG	AGCAGGAAGG	ATAACAAAGC	TATCAAAGCT	1320
CATATCTCCT	CCAAGGGCTG	CCTTAATCCA	AGCCCAGTTT	TCACGCGCCC	AAGACCAAGC	1380
TGTTTTCTGA	GTTGCTTGAT	GAGCTAGGAA	TTGGTAATAC	CAAGCAGACA	AGTCCTGTGG	1440
TTTGACCACA	AATTTGTCTT	TCCAAGAAGT	AATCAGGTTT	TGGATATTAT	CCGCATCTGT	1500
ACTGTATGCA	AGAGCTGCTG	CCAAGTGCGC	TTTAAAGACA	GCATCTGTTG	CGTGAGTATA	1560
AGTATCAAGA	TAAAGTGCTA	ACAAGTCTTT	AGTCTCATGA	TGTTTCATCT	CATTAATCAG	1620
AACTTGTGAG	CGAATAGCTG	CTGGGAGTCC	TGCAAGATTC	TCCTTGTGTG	TTGCGAAGAT	1680
TTGGCTAGCG	ACTTGACTAG	CTTCTGCATC	ATTTGAGCGA	ATCATCATCG	AAACAGCCAG	1740
CTGACGAACC	AATTCATCCT	CATCTGATTC	TCCGTCTTTA	GCTTCAAAAC	CAAGACGGTC	1800
ATAGTTATGA	CGAGCCAATT	TAGCAACCAG	TCCTTTGAAG	GCTGTTTCAG	CATCCGTTCC	1860
TTCATCAATA	AAGCGCTCAA	GGGCTGAAAT	CACTTGAGAA	ACAGCTGAAA	CCACCAGATA	1920
AGACTCTTCC	TTAGCAAGTT	TATCAAGAAC	TGGAAGCAAG	TCTGCATAAG	AAATGTGCCC	1980
TGCCTCAGCC	AACAAACGAC	GTTCTTGAAC	AATTTGCAGT	TTGCTTGTGT	TATCAAGTGT	2040

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CTCTAGCTCA	GCAAGAACAG	CTGCTAACAA	GTCTCCTTGA	TAGTCGGTAA	TATAGTGGGC	2100
AGTATTTTCA	GTGTTGAGAC	GAAGAGCTCC	TTCATTTTCA	GCAAGAAGAG	CTGCGTAGCC	2160
AGGGATTTCG	ATACTTTCAG	TTTCGAGTGT	ATCAGGCAAG	CCTTTCCAGT	TGCTATTGAG	2220
GGGCACCACC	CAGAGACGGT	TCTTGTCTTC	GTTCTCACCG	ATGAAGAATT	GTTTTTGTGA	2280
AATCTTCAAG	ACATCATTTT	CAACTTTAAC	AGTAAGAACT	GGGTAACCAG	GCTGTTCCAA	2340
CCAAGAATCC	ATGAAGGCTG	CGACATCACG	TCCTGACGCT	TGACCAAGGG	CATCCCAAAG	2400
GTCACTACCA	ATGGTGTTGC	TGTATTGGTG	TTTTTCAAAG	TAGGCGTGCA	AACCTTTAGC	2460
AAAATCAGCA	TCTCCTAGCC	AACGGCGAAG	CATGTGCATG	AGACGGCTTC	CTTTGGCATA	2520
GACGATAGCG	CCGTCAAAGA	GTGTATTGAT	TTCATCTGGA	TGTTTAACTT	CGACGTGGAC	2580
AGACTGAACG	CCATCAGTAG	CGTCACGTTC	AAGAGCAAGA	GGTACTCCAC	CTGTTTGGAA	2640
ATCTTCAAAG	ATATTCCAGC	TTGGTTCGAT	GGTATCCACA	CAGACGTATT	CCATCATATT	2700
AGCGAAACTT	TCATTGAGCC	AAAGGTCATC	CCACCATTTC	ATAGTCACGA	GGTTCCCAAA	2760
CCATTGGTGA	GCCAATTCAT	GGGCCACAAC	AAGGGCAACT	TGTTGACGGC	TAGCAAATGT	2820
AGAGTTCTCA	TCGACAACCA	AGTAACTTC	ACGGTAGGTC	ACAAGACCCC	AGTTTTCCAT	2880
AGCACCAGCT	GAGAAGTCAG	GAAGGGCGAT	GTGGAGAGAT	TGAGGAATTG	GGTACTTAAC	2940
TCCATAGTAA	TCTTCGTAAA	ACTCGATAGA	GCGAACAGCG	ATATCCAGTG	AGAAATCAAG	3000
ATTTGAAAGT	GGATGTGCTT	TGGTTGAGTA	GACACCTACC	AGGGTACCAT	TTTTAGTTTT	3060
AGCGGTCACC	CCTTGCAAAT	CACCAGCAAC	AAAGGCCAAC	AAGTAAGAAG	ACATGCGAGG	3120
TGTTGTCTCA	AACTTCCAGA	TACCTGTTTC	CTTACGGTTT	TCAACATCGA	TTTCTGGCAT	3180
GTTTGACAAG	GCCAATTCAC	CTTCTGCTTG	GTCAAAGCGA	AGAGAGAGGT	CAAAAGTTGC	3240
TTTGGCTTCA	GGCTCATCCA	CACATGGGAA	AGcTTCGCGC	GCAAAATGGC	TCTCGAACTG	3300
AGTAGACAAG	ACCTCCTTCT	TGACTCCATC	AACTGTATAA	TAAGAAGGGT	AAATCCCTGT	3360
CATGTTGTCT	GTAATTTTAC	CAGAAAAGGC	AAGAACCAAT	TCAACTTGAC	CAGCCTCAGC	3420
CAATTGATA	TGAAGGGCTT	CATTGTCATG	GTCAACTGTA	AATGGACGAG	CTTGACCTGC	3480
AACTTCTACA	GAGGTGATTT	CCAAATCTTT	TTGGTGGAGG	GAGATGCGGT	CACTCTGTGC	3540
TTGACCAGTG	ATGGTCACTT	TCCCAGAAAA	AGTCTTGGTC	TCACGACTCA	AATCTAAAAA	3600
TAAATCATAA	TGTTCAGGAA	CAAATTGCTT	AATGGG			3636

(2) INFORMATION FOR SEQ ID NO: 79:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 5066 base pairs

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(B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 79:

ATAGCGTGTA ATAATCGATT TTAGAGGTAC CATAAGCCAC CTCCTACAAA TAGAAACCGA	60
TATAAATCAA TGCCTTCCAC CCTTAGACTT CCCTAGTTCC TGTCTCAAGC GAAACATTTTC	120
TTTGAAACAG GAATAAGTTA ACCAATTCAT ACCAATAGCT AGCAGAATAA AAAGAAACCA	180
AATGCCCCAT AACTTGATAT CTGTCACATT TCTCAAGACG GTATTGAAAA ACAGAACTGA	240
AACAACGTGC CAAGCAAGGC TAAAAAGAGA ATAGAAGGGG ATGTAAAACC AGTAAAAATA	300
ATAAAAAATT GGAAAAAACT TACTATTTCT GTTGGCCTTT TCAATCCAGT TATCAAAATA	360
AAAGTACGGT GCTAAAAGTA AGAATTTAAA CAAATGTTCC ATCACCGACA TCCCCCCTTC	420
TTTTGATAGC GTTTTCTATT ATTTTATTAT ATCAAAAAAA TCCGGAACGT TCATTCCAGA	480
TTCTACTTTT TTATTTGCGT TTTCTTGCGA TGAGATGAAT CGGTGTTCCC TCAAAAACAA	540
AGGCCTTGCG GATTTGATTT TCCAAGAAAC GCAGGTAAGA AAAGTGCATG AGTTCTTCTT	600
CATTGACAAA GATGACAAAG GTTGGTGGTT TGGTGCCAC TTGGGTCGCA TAGAAAATCT	660
TGAGACGTTT TCCTTTGTCT GTCGGTGTG GGTGATGGC AATGGCATCC ATGATGACAT	720
CGTCAAGAC AGCTGATGGA ATACGTGTAT TTTGACTTTC GCTGATTTGC TTAATCATCT	780
CAGGAAGTTT GTGGAGACGT TGCTTGGTTA AAGCTGATAC AAAGATAATC GGTGCGTAAG	840
GCAGGTATTG GAACTGCTCA CGGATATCTT CTTCCAGTT TTTCATAGTG TGGTTATCTT	900
TTTCAAGCGT ATCCCACTTG TTGACCACGA TAATCATCCC TTTACCAGCT TCATGGGCAA	960
ATCCTGCGAT ACGCTTGTCG TACTCACGAA TGCCTTCTTC CGCATTGATG ACCATCAAGA	1020
CCACATCTGA ACGGTCAATA GCACGCATGG CACGCATAAC AGAGTATTTT TCAGTATTTT	1080
CATAAACCTT ACCAGACTTA CGCATACCAG CCGTATCAAT CATGGTAAAC TCTTGACCAT	1140
CTGTATCTGT AAAGTGGGTA TCAATGGCAT CACGAGTTGT TCCAGCAACA GGACTIONCAA	1200
TAACACGGTC TTCTCCCAAG ATAGCATTGA TCAAGCTTGA TTTTCCAACG TTAGGACGAC	1260
CAATCAAGCT AAACCTAATG ACATCTGGAT TTTCTTCCTC ATATTCATTT GGAAGATTTT	1320
CTACGATCGC ATCTAGCACA TCCCCTGTAC CGATTCCATG GACAGATGAG ATAGGCAATG	1380
GTTCACCCAA ACCGAGAGCA TAGAAATCAT ATATATCATT TCTCATCTCA GGGTTGTCCA	1440
CCTGTGTTGAC TGCGAGGATA ACTGGTTTGT GGGTCTTATA AAGCTTACGA GCTACGTATT	1500
CGTCTGCATC AGTAATTCCT TCCTTACCAG ACACGACAAA AACGATAACA TCTGCTTCTT	1560

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CCATGGCAAT TTCTGCCTGG TGCTTGATTT GTTCCATGAA AGGAGCATCG ACATCATCAA	1620
TTCTCCTGT ATCAATCATG CTAAAAGAAC GATTGAGCCA CTCACCCGTT GCATAAATAC	1680
GGTCACGTGT CACTCCTTCG ACATCTTCTA CAATGGAGAT TCGCTCACCA GCGATCCGAT	1740
TAAATAGGGT TGATTTCCTA ACATGGGAC GTCCTACAAT GGCAATAGTT GGTAGGGCCA	1800
TAATTTCTCA CTTTCTACAA TAATTTCTTC TGTTCAGAT TTTTCTAGT TGAGCTTGGT	1860
TCAGCTTGAC CAAACTGTTT TGCTAGGCGC TGAATCCAGC TTGTGGTCGC ACGCGCCCCA	1920
GCATAGTCAG CCTGAACACG GTCATAAGCT TGGATTGCCT CAGTTGACTG TTCTTGGTAT	1980
TCTTCTCAA AGACAACATT CTCTAGTGGC AGTCTCGGT TCATATCATG ATGTGATTT	2040
GGCACACCCA GTGCCATCCC AAAGACAGAA TAGGTGTAGT CAGGTAGGTT AAAGAGCTCT	2100
GCCACTTCTT CAGACTTGTA TCGAACCAAA CCGATAATCA CACCACCATA GCCCAAGCTT	2160
TCAGCTGCCA ACAAGGCGTT TTGTCCAGCA AGAGCTGCAT CGACCGAACT AATCAAGAGA	2220
CCTTCCACAC CTTGGGGTTG GAAGGTGTCG GTATGAAGTC GGGCTCCCTT TTCTGCTCGG	2280
TTCAAATCTC CGACAAAGAG AAGGAAAACA GCAGACTGGC GAATGGCTTC TTGAGGTACC	2340
AATTCATACA AGGCATCTTT CTCTCTTGA CTTCGTACCA CAATCACAGA GTAGGATTGG	2400
AAATTTCTCC AAGATGATGC CATCTGGGCT GCTGTCAAAA TCTCATTTAA GTCTACTTGG	2460
GGAAATTTCTT GCTCTTTAAA CCTGCGCACT GAAGTATGAG CCTTCATCAA TTTAATGGTT	2520
TCTGTATCG ACGGTTTACT CCTTCTAAAC GAGTCTCCTC AGCCAAATAA CGGATGCGTT	2580
CCATGACCCG TCTGGCTTCC CAGGTTTCGT CATTTCCATG TTCACTTTTC GCAAAATGCT	2640
TCTCCAAATC TTCAAAGTTG AAGTTGGATG TGAAAAAGGT CGGTAAATTT TCCTGCATCC	2700
GATATTGGAG AATGACCTGC AGGATTTTCGT CACGCACCCA AACGGTTGAT TGCTCGGCGC	2760
CAATATCATC TAAAATCAGG ACCTCAGACA GCTTAATCTC ATCCACCAAG GTCTTAACAT	2820
TGCCATCACT GATAGCATTT TTGACATCAA TGACAAAGCT AGGATAGTGG AGGAGAGTTG	2880
ATGAAACACC ACGTTTTTCT GATAAATCAT GAGCTAAGGC CGCCACCATG AAACTTTTAC	2940
CCACACCAAA GTCTCCATAT AAGTAAAGAC CTTTTCGAAT AGCTGGATAT TGCTCCACGA	3000
AGGCTAGTAG CTTTTCAAAA ACTGGTAAGC GCCCAAAATC ATCCAAGTCA ACTTGAGCCA	3060
AACTAGCTTT CTGAGACTG GCTGGTAGAT TGATTAACCT GAGACGGTTC TTAATAGCCG	3120
CTTCTTTTTC AGCCGCGATT AGCTCAGGAG TTTCTTCATA TGAAACATCT GCATAACCAT	3180
GATTCCTAAC CAAAATCGGC TTGTAGCCTT TGGCAATATA ATCCGTATCC CCACGGAGAA	3240
ACTTGTCACG CTCGGTGATG TACTGATTAA ACTTGAGAT ACTGCGATTT AATTCCTTTG	3300

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GAGTTAAGGA TTCTTGCTGG ATAAAGGCCG CAACATCAGG GTCCTTCATG ATTTTCTGGA	3360
CCAAATCTTG ATAATAAAAA CGGCTGGGTT GACGTTTGAG TACGTCTCCG ACACCTTTCCA	3420
TCTAATCTCC TCCTTTTCT AATCGAGCTA ATAGTTCTTG CTTCTTACGT TCTAGTTCCA	3480
GACGAGTTTC CTCGCTGGTT TCATTCTTAT ATTCAGGATT ACTCCATTTA GGAACATTGG	3540
TTTTTCTGG GGCAGTCTGA TTCTGTTTTT GTGTTTTTGC TTTCTGCCCT CGATCACGAA	3600
TTCGTAAAAC GGCCTCTTCT GCCGAATGAA TCTTTTGATA GGCATAGTCA TTGGCTACCT	3660
TCATGGCATA TTTCTCATTG ATATTTGCCG AATCCACCTT ATTAAAGGTC AATAAGAGAA	3720
TAATATTGAT GACTTCGTCC AGTAAGCCCA AGCCAGCCAT CTGTTGCAAG AGTTCTCTTT	3780
CTGTTTGGGT AATGGTTCCC TTGCGTGTTT GCTTGATTTC TGCTAAGAAC TGCAGGGCAG	3840
TTTTACTTTT AGCTTCTTTG ATAATGGTCG CTTCTTAAG ACTAAAGTCA GAGGAACTG	3900
GTTTTTGAGC AATTTTTTCA CGCATGCGTT TGGTTGAAAT AACCTGGGAA ACAGCTGTTG	3960
ACTTGGCCAA TTGATAGGTT TCAAACCAAG TCCATTCTTT CTCCTCGGCA ATAGCAAAGA	4020
GGTTTAAGAC ATCGGACTGC TCATCCGCAA AACGAAGTCC ATCTCGAGCC ATCAGCTGGC	4080
GAAAATGTTT CAAGTCAAAA TCATTGGCCA CTTTCTTCTT GAGACCAAGG TCTTCTTGAC	4140
TGCCTAGTTC TGCCAATTCT GGAAAGACTT GATTGAGTGA GACAGGTATT TCTTCACCAT	4200
CAGCACTTTC AACTTTCAAA TCCTCCACAG CTACATCGCC AATCTTTTTC TCTAAGAGTC	4260
TGCGATAAAC AGGATGCCCC AAGAAGTCTT GACTAGATAG AGGAGCATGG AGGGCTAGCT	4320
GATAAACATC ACCCTTTTGA TAGAGGGTCA AGAGATTAAA AGCAGATAAG ATTTTCAATG	4380
ATTTTATCAG TCTATCCATC CCAAAGTTGA GATGGTTGAG AATGCTTGAA AAAAGATATT	4440
CCTTTCTACC ATTATCCCAA AAAGTGATTG TATAAAGATA AAGGCTCAGT GCCTCCTGAC	4500
CGATAATCGG GAGGTAGCAC TGTACCAGAG ATGAGGTATC TTGCGACACC CGATTATTCT	4560
TTAGATAAGA AAAACGGTCA ATTGGCTTCA TTTATCTTTC CTTTTTCTTT TTAGAGGACT	4620
GGGTGATTTG TTGGAGCAAG CTCTCTAACT CACTGACATC CTTAAACTA CGATAGACAC	4680
TAGCAAAACG TACATAGGTA ATCTCGTCCA ATTCAGCCAA CTCCTCCATG ACGAGTGAAC	4740
CAATGTCCTC ACTTTGAATT TCATTTTCAT TTCGACCACG GAGTTTCTGT TCGATACGAT	4800
TGACTACCAT GTTGATTTCA TCACTTGACA CAGGACGTTT CTGGGCTGAG CGGATAATCC	4860
CATTAAAGAT TTTATCTCTG GAGAATTGTT CCCGTGTGCC ATCTTTTTTA ACAACCACTA	4920
AGGTTCCTTC TTCTACTCGT TCGTAGGTTG TAAACGGTG TTGGCATTCG TCGCACTCAC	4980
GTCTTCTACG AATGGTGTTT CCTTCTTCTG CTTGGCGACT ATCGATAACA CTTGACTTGG	5040
TAGCCCCACA TTTTGGACAG GGTACC	5066

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(2) INFORMATION FOR SEQ ID NO: 80:

- (i) SEQUENCE CHARACTERISTICS:  
(A) LENGTH: 9607 base pairs  
(B) TYPE: nucleic acid  
(C) STRANDEDNESS: double  
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 80:

CACCTGAAGT ATTTGAAACA GCTATGGAAA ACATCATGCC TGTACTTGAA GTACGTGCAC	60
GTCGTGTTGG TGGTTCTAAC TACCAAGTCC CAGTTGAAGT TCGTCCAGAA CGTCGTACAA	120
CACCTGGACT TCGTTGGTTG GTAACAATCG CTCGTCTTCG TGGTGAACAC ACAATGCAAG	180
ACCGTCTTGC AAAAGAAATC TTGGATGCTG CTAACAACAC TGGTGCAGCA GTTAAGAAAC	240
GTGAAGATAC TCACCGTATG GCTGAAGCTA ACCCTGCATT CGCACACTTC CGTTGGTAAG	300
ATAGGATGCG AAAGCGTTAA GAAAGTCCCA GAGAAAATAG GGAATCGAAG CAGGTTGCGG	360
TTGCAACCAA TGAGATTCAT CTTTTCTCC AGACTTTTAG CTTGAGCTCA ACTAAATCAT	420
GATGCTAGGA ACGGTAAGGA TGCAAGGTAA AAATAGGAAA CTGACGCAGT ATTCGACGAA	480
TACAAGGAGT TTTATCTTTT TCACGCAGCA TCCCGTTCCA GCTCACATCG GCTAACTAAC	540
TTTAGCCCGG GTTCAAATTA GCTAAATCGA TTAGTATTAG CTATAACTCA GCTTACCATC	600
TCGTAAGTTG AAACCAACAA TAGCATGAAA ACATTGAGAA CGGGTAGGTC CTGCCTATCC	660
GTTTTTATTA AAATCGTGTT ATAATAGAAT AGAAATCAAA AATAAATAGG AGAAACAAAC	720
CTCATGGCAC GCGAATTTTC ACTTGAAAAA ACTCGTAATA TCGGTATCAT GGCTCACGTC	780
GATGCCCGTA AAACAACAAC TACTGAGCGT ATTCTTTACT ACACTGGTAA AATCCACAAA	840
ATCGGTGAAA CTCACGAAGG TGCGTCACAA ATGGACTGGA TGGAGCAAGA GCAAGAACGT	900
GGTATCACGA TCACATCTGC TGCGACGACA GCTCAATGGA ACAACCACCG CGTAAACATC	960
ATCGACACAC CAGGACACGT GGACTTCACA ATCGAAGTAC AACGTTCTCT TCGTGTATTG	1020
GATGGTGCGG TTACCGTTCT TGA CTCACAA TCAGGTGTTG AGCCTCAAAC TGAAACAGTT	1080
TGGCGTCAAG CAACTGAGTA CGGAGTTCCA CGTATCGTAT TTGCCAACAA AATGGACAAA	1140
ATCGGTGCTG ACTTCCTTTA CTCTGTAAGC ACAC TTCACG ATCGTCTTCA AGCAAATGCA	1200
CACCCAATCC AATTGCCAAT CGGTTCTGAA GATGACTTCC GTGGTATCAT TGACTTGATC	1260
AAGATGAAAG CTGAAATCTA TACTAACGAC CTTGGTACGG ATATCCTTGA AGAAGACATC	1320
CCAGCTGAAT ACCTTGACCA AGCTCAAGAA TACCGTGAAA AATTGATTGA AGCAGTTGCT	1380

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GAAACTGACG	AAGAATTGAT	GATGAAATAC	CTCGAAGGTG	AAGAAATCAC	TAACGAAGAA	1440
TTGAAAGCTG	GTATCCGTAA	AGCGACTATC	AACGTTGAAT	TCTTCCCAGT	ATTGTGTGGT	1500
TCAGCCTTCA	AAAACAAAGG	TGTTCAATTG	ATGCTTGATG	CGGTTATCGA	CTACCTTCCA	1560
AGCCCACTTG	ACATCCCAGC	AATCAAAGGT	ATTAACCCAG	ATACAGACGC	TGAAGAAATT	1620
CGTCCAGCAT	CTGACGAAGA	GCCATTTGCA	GCTCTTGCCT	TCAAGATCAT	GA CTGACCCA	1680
TTCGTAGGTC	GTTTGACATT	CTTCCGTGTT	TACTCAGGTG	TTCTTCAATC	AGGTTCATAC	1740
GTATTGAATA	CTTCTAAAGG	TAAACGTGAA	CGTATCGGAC	GTATCCTTCA	AATGCACGCT	1800
AACAGCCGTC	AAGAAATCGA	CACTGTTTAC	TCAGGTGATA	TCGCTGCTGC	CGTTGGTTTG	1860
AAAGATACTA	CAACTGGTGA	CTCATTTGACA	GATGAAAAAG	CTAAAATCAT	CCTTGAGTCA	1920
ATCAACGTTT	CAGAACCAGT	TATCCAATTG	ATGGTTGAGC	CAAAATCTAA	AGCTGACCAA	1980
GACAAGATGG	GTATCGCCCT	TCAAAAATTG	GCTGAAGAAG	ATCCAACATT	CCGCGTTGAA	2040
ACAAACGTTG	AACTGGTGA	AACAGTTATC	TCAGGTATGG	GTGAACCTCA	CCTTGACGTC	2100
CTTGTTGATC	GTATGCGTCG	TGAGTTCAAA	GTTGAAGCGA	ACGTAGGTGC	TCCTCAAGTA	2160
TCTTACCGTG	AAACATTCCG	CGCTTCTACT	CAAGCACGTG	GATTCTTCAA	ACGTACAGTCT	2220
GGTGGTAAAG	GTCAATTCCG	TGATGTATGG	ATTGAATTTA	CTCCAAACGA	AGAAGGTAAA	2280
GGATTCGAAT	TCGAAAACGC	AATCGTCGGT	GGTGTGGTTC	CTCGTGAATT	TATCCCAGCG	2340
GTTGAAAAAG	GTTTGGTAGA	ATCTATGGCT	AACGGTGTTC	TTGCAGGTTA	CCCAATGGTT	2400
GACGTTAAAG	CTAAGCTTTA	TGATGGTTCA	TATCACGATG	TCGACTCATC	TGAAACTGCC	2460
TTCAAGATTG	CGGCTTCACT	TTCCCTTAAA	GAAGCTGCTA	AATCAGCACA	ACCAGCTATC	2520
CTTGAACCAA	TGATGCTTGT	AACAATCACT	GTTCCAGAAG	AAAACCTTGG	TGATGTTATG	2580
GGTCACGTAA	CTGCTCGTCG	TGGACGTGTA	GATGGTATGG	AAGCACACGG	TAACAGCCAA	2640
ATCGTTCGTG	CTTACGTTCC	ACTTGCTGAA	ATGTTCCGTT	ACGCAACAGT	TCTTCGTTCT	2700
GCATCTCAAG	GACGTGGTAC	ATTTCATGATG	GTATTTGACC	ACTACGAAGA	TGTACCTAAG	2760
TCAGTACAAG	AAGAAATTAT	TAAGAAAAAT	AAAGGTGAAG	ACTAATCCGT	CCTCACTCTA	2820
GAAGGAAGTC	ACTTAGTGGC	TTCCTTTTGT	CTTTAGAAAA	TACCTCTAAA	TATGGTAAAA	2880
TAGTAGAAGA	ATAATGTGAG	GAAAAATGAAT	GTCAAATAGT	TTTGAAATTT	TGATGAATCA	2940
ATTGGGGATG	CCTGCTGAAA	TGAGACAGGC	TCCTGCTTTA	GCACAGGCCA	ATATTGAGCG	3000
AGTTGTGGTT	CATAAAATTA	GTAAGGTATG	GGAGTTTCAT	TTCGTATTTT	CTAATATTTT	3060
ACCGATTGAA	ATCTTTTGTAG	AATTAAAGAA	AGGTTTGAGC	GAAGAATTTT	CTAAGACAGG	3120
CAATAAAGCT	GTTTTTGAAA	TTAAGGCTCG	GTCTCAAGAA	TTTTCAAATC	AGCTCTTGCA	3180



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GTCCTACTAT AGGGAGGCTT TCTCTGAAGG TCCATGTGCT AGTCAAGGTT TTAAGTCCCT	3240
TTATCAAAAT TTGCAAGTTC GTGCTGAGGG TAATCAGCTA TTTATTGAAG GATCTGAAGC	3300
GATTGATAAG GAACATTTTA AGAAGAATCA TCTTCCTAAT TTAGCCAAAC AACTTGAAAA	3360
GTTTGGTTTT CCAACTTTTA ACTGTCAAGT CGAGAAGAAT GATGTCCTGA CCCAAGAGCA	3420
GGAAGAGGCC TTTCATGCTG AAAATGAGCA GATTGTTCAA GCTGCCAATG AGGAAGCGCT	3480
CCGTGCTATG GAACAACTGG AGCAGATGGC ACCTCCTCCA GCGGAAGAGA AACCAGCCTT	3540
TGATTTTCAA GCGAAAAAAG CTGCAGCTAA ACCCAAGCTG GATAAGGCGG AGATTACTCC	3600
TATGATCGAA GTGACGACAG AGGAAAATCG TCTGGTATTT GAAGGGGTTG TTTTGTGATG	3660
GGAGCAAAAA GTGACTAGAA CAGGTCGTGT TTTAATCAAC TTTAAAATGA CGGACTATAC	3720
TTCAAGTTTT TCTATGCAAA AGTGGGTAA AAACGAGGAA GAGGCCAGA AGTTTGACCT	3780
CATCAAGAAG AATTCTTGGC TCCGAGTTCG AGGAATGTG GAGATGAATA ACTTCACACG	3840
CGATTTGACT ATGAACGTAC AGGATCTGCA GGAAGTTGTT CACTATGAGC GGAAGGATTT	3900
GATGCCAGAA GGTGAGCGTC GGGTTGAGTT TCATGCTCAT ACTAACATGT CGACTATGGA	3960
TGCTTTGCCA GAGGTCGAAG AGATTGTTGC AACAGCTGCT AAGTGGGGAC ACAAGGCGGT	4020
TGCTATCACG GACCATGGGA ATGTCCAGTC CTTCCACAT GGCTATAAGG CGGCTAAGAA	4080
AGCGGGAATC CAGCTGATCT ATGGGATGGA AGCCAATATC GTGGAGGACC GTGTCCCTAT	4140
CGTCTATAAC GAAGTGGAGA TGGACTTGTC AGAAGCAACC TACGTGGTCT TTGACGTGGA	4200
AACGACGGGA CTTTCAGCTA TCTATAATGA CTTGATTCAG GTTGCGGCTT CTAAGATGTA	4260
CAAGGGGAAT GTTATTGCTG AATTGATGA ATTTATCAAT CCTGGGCATC CCTTGTGAGC	4320
CTTTACTACA GAGTTAACTG GAATTACAGA TGATCATGTC AAAAATGCCA AACCCTAGTA	4380
ACAAGTTTTG CAAGAATTCC AAGAATTTTG CAAGGATACG GTCCTAGTTG CCCACAATGC	4440
TACCTTTGAC GTTGGCTTTA TGAATGCTAA TTATGAGCGG CATGATCTTC CAAAGATTAG	4500
TCAGCCAGTT ATTGATACGC TGGAGTTTGC TAGAAACCTC TATCCTGAGT ATAAACGCCA	4560
TGGTTTGGGG CCTTTGACCA AGCGTTTTGG TGTGGCCTTG GAACATCACC ACATGGCCAA	4620
CTACGATGCG GAAGCGACTG GTCGTCTGCT TTTCATCTTT ATCAAAGAGG TAGCAGAAAA	4680
ACATGGTGTG ACCGATTTAG CTAGACTCAA CATTGATCTA ATCAGTCCAG ATTCTTACAA	4740
AAAAGCTCGG ATCAAGCATG CGACCATCTA TGCAAGAAT CAGGTAGGTC TAAAAAATAT	4800
CTTTAAGCTG GTTTCCTTGT CTAATACCAA GTATTTTGAA GGAGTGCCAC GGATTCGGAG	4860
AACGGTTCTA GATGCCCATC GAGAGGGCTT GATTTTAGGT TCAGCCTGTT CAGAGGGTGA	4920

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AGTTTTTGAC GTGGTCGTTT CTCAAGGTGT GGATGCGGCG GTTGAGGTGG CCAAGTATTA	4980
TGATTTTATC GAGGTCATGC CACCGGCTAT CTATGCACCC TTGATTGCCA AAGAGCAGGT	5040
CAAGGATATG GAGGAACTCC AGACCATTAT CAAGAGTTTG ATAGAGGTG GAGACCGCCT	5100
TGGCAAGCCT GTTCTGGCTA CGGGAAATGT TCACTATATC GAACCGGAAG AAGAGATTTA	5160
TCGTGAAATT ATCGTCCGTA GTTTGGGACA GGTGCGATG ATTAATCGAA CTATCGGTCA	5220
TGGTGAACAT GCCCAACCAG CACCACTTCC AAAGGCTCAT TTTCGAACGA CTAATGAGAT	5280
GTTGGATGAA TTTGCCTTTT TGGGAGAGGA ACTGGCTCGT AAAGTGGTTA TTGAAAACAC	5340
CAATGCCTTG GCAGAAATAT TTGAATCCGT TGAAGTCGTT AAGGGTGAAT TGTATACGCC	5400
TTTCATCGAC AAGGCTGAAG AACAGTTGC TGAGTTGACC TATAAGAAAG CTTTTGAGAT	5460
TTATGGAAT CCGCTGCCAG ATATTGTTGA TTTGCGGATT GAAAAAGAAT TAACATCCAT	5520
ACTGGGGAAT GGATTTGCTG TGATTTATCT GGCATCGCAG ATGCTGGTGC AACGTTCTAA	5580
TGAACGGGGT TATTTGGTTG GTTCTCGTGG GTCTGTCGGA TCTAGTTTCG TTGCGACCAT	5640
GATTGGGATT ACGGAGGTCA ATCCTCTCTC TCCTCACTAT GTCTGTGGTC AGTGTCAGTA	5700
CAGTGAGTTT ATCACAGATG GTTCGTACGG TTCAGGATTT GATATGCCCC ATAAGGACTG	5760
TCCAAACTGT GGTCACAAAC TCAGTAAAAA CGGACAGGAT ATTCCGTTTG AGACCTTCCT	5820
TGTTTTTGAT GGGGATAAGG TTCCTGATAT TGAAGTGAAC TTCTCGGGAG AAGATCAGCC	5880
TAGCGCCAC TTGGATGTGC GTGATATCTT TGGTGAAGAA TATGCCTTCC GTGCGGGAAC	5940
GGTTGGTACG GTAGCTGCCA AGACTGCCTA TGGATTTGTC AAAGGTTACG AGCGAGATTA	6000
TGGCAAGTTT TATCGTGATG CAGAAGTAGA ACGCTCGCT CAAGGAGCGG CGGGTGTCAA	6060
GCGGACAACA GGCCAACACC CGGGGGGAAT CGTTGTTATT CCGAACTACA TGGATGTCTA	6120
CGATTTTACG CCTGTCCAGT ATCCAGCAGA TGATGTCACG GCTGAATGGC AGACCACTCA	6180
CTTTAACTTC CACGATATCG ATGAGAACGT CCTCAAATC GATGTACTGG GACATGATGA	6240
TCCGACTATG ATTCGAAAAC TTCAGGATTT GTCTGGTATT GACCCTAATA AAATTCCTAT	6300
GGATGACGAA GCGGTGATGG CACTCTTTTC TGGGACTGAT GTGCTAGGGG TAACACCTGA	6360
ACAAATTGGA ACGCCTACGG GTATGTTGGG GATTCCAGAG TTTGGAACAA ATTTCTGACG	6420
TGGAATGGTA GACGAAACCC ATCCGACAAC CTTTGCAGAA TTGCTTCAGC TGTCTGGTCT	6480
GTCCACGGT ACTGATGTTT GGTGCGGAA TGCTCAGGAT CTGATTAAGC AAGGAATAGC	6540
GGACCTATCG ACTGTTATCG GTTGTGCGGA CGACATCATG GTTTACCTCA TGCATGCGGG	6600
TCTGGAACCT AAGATGGCCT TTACCATTAT GGAACGGGTA CGTAAGGGTT TGTGGCTAAA	6660
GATTTAGAA GAGGAGAGAA ATGGCTATAT CGAAGCAATG AAGGCTAATA AGGTGCCAGA	6720

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GTGGTATATC GAATCCTGTG GGAAAATTAA GTACATGTTC CCTAAGGCCC ATGCGGCAGC	6780
CTACGTTATG ATGGCCTTGC GTGTAGCTTA CTTCAAGGTT CACCATCCTA TTTATTACTA	6840
CTGTGCTTAC TTCTCCATTC GTGCTAAGGC TTTTGATATC AAGACCATGG GTGCGGGCTT	6900
GGAGGTCATC AAGCGCAGAA TGAAGAAAAT CTCTGAAAAA CGGAAGAACA ATGAAGCCTC	6960
TAATGTGGAA ATCGATCTCT ATACAACCTCT TGAGATTGTC AATGAGATGT GGAACGAGG	7020
TTTCAAGTTT GGTAAATTAG ATCTCTACTG TAGTCAGGCG ACAGAGTTCC TCATCGACGG	7080
GGATACCCCTT ATCCCACCAT TTGTAGCAAT GGATGGTCTG GGAGAGAACG TTGCCAAGCA	7140
ACTGGTGCGG GCGCGTGAAG AGGGAGAATT CCTCTCTAAA ACAGAACTAC GCAAGCGTGG	7200
TGGACTCTCA TCAACCTTGG TTGAAAAGAT GGATGAGATG GGTATTCTTG GAAATATGCC	7260
AGAGGATAAC CAGTTGAGTT TGTTTGATGA GTTGTTTTAA AAAATTGCTT AATAATCTAT	7320
TAAAAGAGGC TAACGTATAT CCAATAGATT TACATTAGCT TTCTTTTGTG TTAAAATAGT	7380
CTATGGAAAG AGGGTGAGAG TATGTCAAAG ATGAGTATAA GCATCCGCTT GGATAGTGAG	7440
GTTAAGGAGC AGGCCCAACA GGTGTTTAGT AATCTGGGAA TGATATGAC AACAGCTATT	7500
AATATTTTCC TTCGTCAGGC AATTCAATAT CAGGGATTAC CTTTTGATGT TAGACTAGAC	7560
GAAAAATCGGA AGTTGCTCCA AGCGTTAAGC GATTTAGACC AAAATCGTAA TATGAGCCAG	7620
TCTTTTGAAT CAGTCTCAGA TTTGATGGAG GACTTACGTG CTTAAGATTC GTTATCATAA	7680
ACAGTTTAAA AAAGATTTTA AGTTGGCTAT GAAGCGTGGT TTGAAGGCAG AATTATTAGA	7740
AGAAGTTTGT AATTTTCTGG TTCAAGAAAA AGAACATCCT GCCAGAAATC GTGATCATTC	7800
ATTGACGGCA TCCAAGCATT TTCAAGGAGT TCGTGAATGC CATACCCAGC CAGATTGGCT	7860
TTTGGTTTAT AAAGTAGACA AGTCGGAATT GATTTTAAAT TTGCTGAGGA CAGGCAGTCA	7920
CAGTGATTTA TTTTAATCTA TTTTAAGGGG GTTCTCATGA AACTAAGAAT ATTTGCGGAA	7980
GATAAGCCGG CTAAGAAGGT ATTTGAATAT CAATTAGAAC TTGCTGATCG TACAATTCTT	8040
CTATCGACAG CACTCTTGTC AGGTGCTATT GCTTTAGCAG GAATCTTTTC TGCTTTGAAA	8100
GAAAAATAAA AATAGAAAAG AGAAAACAGA ATGGTTTTAC CAAATTTTAA AGAAAATCTA	8160
GAAAAATATG CGAAATTGTT GGTTCGGAAC GGAATTAACG TGCAACCTGG TCACACTTTG	8220
GCTCTCTCTA TTGATGTGGA GCAACGTGAA TTGGCACATC TAATCGTGAA AGAAGCTTAT	8280
GCCTTGGGTG CGCATGAGGT CATCGTTCAG TGGACAGATG ATGTGATTAA CCGTGAGAAA	8340
TTCTCTCATG CCCCAGTGA GCGTTTGGAC AATGTGCCAG AATACAAGAT TGCTGAGATG	8400
AACTATCTCT TGGAGAATAA GGCTAGCCGT CTTGGAGTTC GTTCATCTGA TCCAGGTGCC	8460

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TTGAACGGAG TGGACGCTGA CAAGCTTTCA GCTTCTGCTA AAGCTATGGG ACTTGCCATG	8520
AAGCCTATGC GTATCGCAAC TCAATCTAAC AAGGTTAGCT GGACTGTAGC AGCTGCAGCA	8580
GGACTTGAGT GGGCTAAGAA AGTCTTCCCA AATGCTGCGA GCGACGAAGA AGCAGTTGAT	8640
TTCTTTTGGG ACCAAATTTT CAAACTTGC CGTGTCTACG AAGCAGATCC TGTTAAGGCT	8700
TGGGAGGAAC ATGCAGCCAT TCTCAAGAGC AAGGCCGATA TGCTTAATAA GGAGCAATTT	8760
TCAGCCCTTC ACTACACAGC GCCAGGAACA GATTTAACAC TTGGTTTGCC AAAGAACCAC	8820
GTTTGGAAT CAGCTGGTGC TGTCAATGCA CAGGGCGAAG AATTCTTGCC AAATATGCCA	8880
ACAGAAGAGG TCTTCACAGC GCCTGACTTC CGTCGTGCAG ATGGTTATGT CACTTCTACA	8940
AAACCGCTTA GCTACAACGG AAATATCATT GAAGGCATTA AGGTGACCTT TAAGGATGGA	9000
CAAATCGTAG ATATCACTGC TGAGAAGGGT GATCAGGTTA TGAAAGACCT TGTCTTTGAA	9060
AATGCGGGTG CGCGTGCCTT GGGTGAATGT GCCTTGGTAC CAGATCCAAG TCCAATTTCT	9120
CAGTCAGGCA TTACCTTCTT TAACACCCTT TTCGATGAAA ATGCGTCAAA CCACTTGGCT	9180
ATCGGTGCAG CCTATGCGAC TAGCGTTGTT GATGGAGCGG AGATGAGCGA AGAGGAGCTT	9240
GAAGCTGCAG GGCTTAACCG TTCAGATGTT CACGTAGACT TTATGATTGG TTCTAACCAA	9300
ATGGATATCG ATGGTATTCG TGAGGATGGA ACGCGGGTAC CTCTTTTCCG TAATGGGAAT	9360
TGGGCAAAT AAGGAGATAA TATGTTAGGA AGTATGTTTCG TTGGTCTCCT AGTGGGATTT	9420
TTAGCAGGTG CTATGACCAA TCGTGGAGAG CGAATGGGAT GTTTTGGAAT AATGTTTCTC	9480
GTTTGATCG GAGCCTTTCT AGGTCACCTG CTCTTTGGAA CTTGGGGGCC AGTTTATCA	9540
GGAACAGCTA TTATCCCAGC GATTTTAGGA GCCATGATTG TTTTAGCTAT TTTTGGAGA	9600
CGAGGAA	9607

(2) INFORMATION FOR SEQ ID NO: 81:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 14231 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 81:

CTACAAGATA ATTCCAGCTA TAACATCCGC TATAATAGTA AGAGCGAGCT CTATGATAAG	60
GCTCATTAGT TTCACCTCCT CTCACGAACC CATAGGAACG TAATCGGTAA CCGATGACAA	120
AAATAGTATA CCACAATACA TTTAGATCAT CAAGGTCCT TAATCTTGA AATATCAGAT	180
CTAAGAGAAA AATCTTTAAA ATCAGAAAAA CGCATAATAT CAGGTGTGCA AAAACTTGAT	240

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ACTATGCGTT TTATTGTGGG AAGGTTTACT CCATTTTCTC CTGAAATTGA GTTTTGTGCC	300
AGCCTCTGTT TTTAGGGTTG CTAAGAAAAT AATGTCATGT GGTGAATATT TGTAATCAG	360
TCAGCAGACA GAACGATACT CTTGAAAAAT CTCTTCACAT CATGTCAGCT TCGTCTTTCC	420
GTATATATGT GACTGACTTC ATCAGTTCTA TCTACAACCT CAAAACAGTG TTTCGAGCTG	480
ACTTGATCAA TTTTCAAATC TGTACTTTGA GCAAGCTGAG ACTAGCTTCC TATTTGATTT	540
TCATTGAATA TCAGAAACCC ATTCTCCATC AAATAATTCTG ACTGCGTCTA ATAATTTTTG	600
ATCTGGCACG GTGTCTGAAA TAAAGGTTGT GTATTGGAG AGGGGATTAA TTTTAAAAAA	660
TCCAGTCTTG TAAAATTTAG AACTATCAAT CAGTAAGATG GTTTCATGGG CTTTGTCAAT	720
AATATCTCTT TTTGAAATAG CTTGGCTGAG AGAAGCTTCA TAAACATATT GGTCAATCAAT	780
ACCTCTTGCT GAACAAAATG CTAAATCGAT ATTAATAATGA TCTAATAAAG AATTTTCCTT	840
ATCATAGTTG ACCACGGAAC AGGATTGATG TTTGACCTCG CCAGATGTGA TAAAGATTTT	900
GGAGCTATCT TTAACAGTTT CAGATAGGGT TTGTGCAGTA TGTAACCAT TTGTAAAAAT	960
AATCAAATTA TCAAGTTCAG AAAGATAGGG ACAGAGTTCG TAGACAGTAG TACTAGAATC	1020
TAGATAGATA CACATACCAG ACCGAATAAA GTCTTTAGCG AGACTAGCGA TTAGTCTTTT	1080
TTGCCTAGTA CTTTCTCCTT CACGTATTTG ATGAGAAAGT TCAATTGTGT TCATAGAGGA	1140
CAGGCTCACG TATCCGTGCT TTCTTTTGAT AAGACCTTGA TTTTCTAAGA AAATTAAATC	1200
ACGACGTAAG GTAATGTGTC TGGAGAAAGT GATTTCTGCC AGCTCTTTTA CGGCAATTCT	1260
TTTTTTCTTT TTGATAATTT CAATCAATTC AAGTACAGT TCATCTTTTA TCATAAGCTC	1320
CTCCTAATTT ATCATTTCAA CTATATTATA GCACAAATTG GAGGAATTTG AATTATTTTT	1380
ATGAATATTG GGTAAACATT TGAACATTAT TCAAGTAAGC GTTCACATAT TGAAAAATA	1440
AAACGTGGGG ATTATAATAA AGTTAATCma GGACGAAGAG AGAAGAAAAA TGGAAGCGGT	1500
TTTAGCAATA GATTTAGGTG CGACTTCTGG AAGAGCAATC GTTGGTTACC TTTCTGAAAA	1560
TAAACTAGTA ATGGAAGAAA TAAATCGCTT TTCCTAATCTA CCTATTAGAG TAAAAGGGCA	1620
TTTATCTTGG GATATTGACT TTCTACTAGC TAAAATTCTT GAAAGTATCC GCTTGGCTAA	1680
TACTAGTTAC AAGATTTTAT CTATCGGTAT TGACACATGG GGAGTTGATT TTGGACTGAT	1740
TGATAATGAA GGTAAAGCTGT TATTACAACC TGTTCATTAT CGTGATGAAA GAACAAAGGG	1800
AGTGTTAAAG GAAATATCTG AAATGACTGA ATTAGAAAAA CTGTATTCAG AGACAGGAAA	1860
TCAGATTATG GAGATAAATA CCTTGTTTCA ACTCTTTAAG GCACGTCAAG AATCTCCTGA	1920
CTCTTTCTAT AAGACCAATA AGATTCTTTT AATGCCAGAT TTGTTTAATT ATCTCTTGAC	1980

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AGGTAAGTTT	GCTACAGAAA	AAAGCATTGC	TTCAACAAC	CAATTATTTG	ATCCTAGGAG	2040
TCAAAATTGG	AATCAGAATA	TCTTAAAACT	ATTTGAATTG	GATTCATCTT	TACTTCCTGA	2100
AATTGTTTCA	GAGGGAAATG	TTCTTGGAAG	GATAAAAGAG	GAGTATGGTT	TAGGCGATAT	2160
TCCTGTTGTG	AATGTTTGTA	GTCATGATAC	AGCAAGCGCG	ATTGTCTCAG	TACCTAAGAC	2220
AGAAGGTAGT	TTATTTATTT	CATCAGGTAC	TTGGTCTTTG	GTTGGAGTGG	AACTTACTTC	2280
ACCGATTCTT	ACTACCGAAT	CCTTCAGTTA	TGGATTTACA	AATGAAGTCG	GTAAAGATGG	2340
AGTGATTACA	TTTCTGAAGA	ATTGTACAGG	GTTGTGGATC	ATAGAGGAAC	TAAGACGTTC	2400
ATTTGAACGA	AGAGGGAAAG	CCTATTCTTT	TGATGATATT	AGGACAATGG	TGGAGAAAGA	2460
AAAAGAAAAT	CTTCCTCTGA	TTGATACTGA	ATCAACTGAA	TTTGCAACAG	AATCTGATAT	2520
GCACAAGACT	TTGACAGAAT	ATCTAGCTTA	TCATCATGAA	ACTAGAGAGT	GGACAGATGG	2580
ACAACTATTT	AAGATTGTTT	ATGAAAGCCT	AGCTGAAACG	TATAGGAAAG	CGATAGAGTT	2640
ACTAGAAGAA	CTAACTCATA	AGGTTTATAA	GAGGATATAT	GTGATTGGAG	GAGGTGCTAG	2700
AGCCAGTTAC	TTTAACCAAA	TGATTGCTGA	TAGAACTGGT	AAAGAGGTTT	TTACAGGTTT	2760
GACTGAGGCT	ACAGCTGTGG	GGAATATTGT	TGTGCAGCTC	ATAGCTATGG	GACAATTAAA	2820
AGGGATGGAA	GAGGCTCACC	ATGTTATTGA	GGAGTTTCTA	CAATTAGAGA	GTTATTACTC	2880
CCAAAAGAAT	TAAAAAGATT	GAGAGTTTGT	AAATTTGCCT	CCCTCCCCCT	TCTTAGCTTT	2940
TGTGCAGGAA	GGGGGGATAA	TTGGTGAATT	GAAAAATATT	TAGTGTTTTG	ATATGAGGAG	3000
GACAAGGATG	TCAGATGTAA	AACAAGAATT	AATTAAATAT	GGTAAGAAGC	TAGTAGAAAC	3060
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GGCAATTACC	CCGTCGGGTA	TTGATTTCTT	TGAAATCAAA	GAATCCGATA	TTGTAGTGAT	3180
GGATATTAAT	GGAAATGTTG	TAGAGGGAGA	ACGCTTGCCA	TCTAGCGAAT	GGTATATGCA	3240
TTTGATTCAA	TATCAAATCT	GTGATGATAT	CGATGCAATT	ATCCATGCTC	ATACAACTTA	3300
TGCAACAGTA	TTAGCTTGTC	TCAGAGAACC	ACTTCCAGCG	AGTCATTATA	TGATTGCAGT	3360
GGCAGGGAAA	GATGTTCTGGG	TAGCTGAGTA	TGCAACATAT	GGCACGAAAG	AATTGGCTGT	3420
GAATGCAGCT	AAAGCAATGG	AAGGTCGTAG	AGCAGTTTTA	CTAGCGAATC	ATGGAATTTT	3480
AGCAGGTGCA	CAAAATTTAT	TGAATGCATT	TAATATTGTT	GAAGAAGTTG	AATATTGTGC	3540
AAAAATTTAT	TGTTTAGCTA	AGAATTTTGG	AGAGCCAGTA	GTTCTTCCTG	ATGAGGAGAT	3600
GGAATTGATG	GCAGAAAAAT	TTAAACATA	CGGTCAGAGA	AAATAGGGAG	GATATTAATG	3660
TTAAACATA	TACCGAAAAA	TATTTCTCCA	GATTTATTGA	AGACTTTAAT	GGAATGGGA	3720
CATGGAGATG	AAATAGTATT	AGCTGACGCG	AATTATCCTT	CTGCCTCATG	TGCAAATAAG	3780

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CTAATTCGTT GTGATGGTGT AAATATTCCA GAATTATTAG ATTCCATTCT GTATTTAATG	3840
CCATTAGATA GTTACGTCGA TAGTTCAATT CAGTTTATGA ACGTTGTTTC GGGTGATGAT	3900
ATTCCTAAGA TATGGGGTAC CTATAGACAG ATGATTGAAG GTCATGGTAC AGATCTTAAA	3960
ACGATTACTT ATCTTAGAAG AGAAGACTTT TATGAACGTA GTAAGAAAGC TTATGCTATF	4020
GTTGCTACAG GAGAAACTTC ACTTTATGCT AATATTATCC TTAAGAAAGG AGTAGTTGTT	4080
GAAAGAGAAA ATGTTCAATA GAGGAATTTT AGTTGCCAGT CATGGTAATT TTGCTAGCGG	4140
AGCTCTCATG ACCGCAGAAA TGT TTGTTGG TGAGACAACA AATGATAGAG TTAGGACATT	4200
AGGTTTGATG CCTGGAGAGA ATATTGTAGA GTTTGAGCAT TATTTTAAAA ATCAAGTGGA	4260
TGAACTGTTA GACTCAAATC AAGAGGTAT CGTTTGGACT GACTTGATTG GAGGAAAGTCC	4320
TAATAATGTG GCTTTGTCAC GGT TTTTAAA TTTGGATTCA GTTGATATTG TAACAGGGTT	4380
TAATATCCCT CTCCTAGTGG AATTAAATATC AAGTTATGAT TCAAAAATCA ATTTAGAAGA	4440
AATTGTTTAC AATGCTCAAA ATAGTTTGTT TAATGTTAAA CAACAACCTA ACGTAGAGGA	4500
GGAGAAGAT TTATGTCTAT AGAGTTTGTT CGTATTGATG ACCCTCTGGT ACATGGTCAA	4560
GTTGTCACTA CGTGGCTAAA AAAGTATGAT ATTGAGCAAG TTATCATTTGT TAATGATCGC	4620
ATCTCAGAAG ATAAAACACG ACAATCTATT TTAAGATTT CTGCACCGGT AGGTTTAAAA	4680
ATTGTTTTCT TTAGTGTAAC ACGGTTTGTG GAAGTTTAA ACTCTGTGCC AATAAAAAAG	4740
AGAACAATGC TGATATATAC AAATCCAAAA GATGTGTATG ATTCTATTGA AGGAAATTTA	4800
AAATTGGAGT ACCTCAATGT AGGACAGATG AGTAAACGG AGGAAAATGA AAAGGTAACG	4860
GGAGGTGTAG CTCTAGGTGA AGAAGACAAA TATTATTTTA AGAAAATAGT TGATAAGGGA	4920
ACGAGAGTTG AAATTCAAAT GGTTCCTAAT GATAAAGTTA CAATGTTGGA AAAATTTTAA	4980
TAAAAATAAT TTAAGGAGGT ACAGTATATG CTATTCACAC AAGCATTACT GGTGACATTA	5040
GTTGGGATTA TTGCCACTAT TGACTATAAT GGACCGTTAT TTATGATTCA CCGTCCGTTA	5100
GTTACAAGTG CAATGGTTGG CTTAGTATTA GGAGATTTCA CCCAAGGTGT TCTTATTGGT	5160
TCAGCTCTTG AATTAACTTG GCTCGGTGTA ACAGGTATTG GAGGTATATAC TCCACCAGAT	5220
ACTATTTTCA GTGCGATTAT TGGTACTGCA TTTGGTATTT TATCTGGTCA AGGAGAACT	5280
GCTGGTATCG CTATAGCAGT TCCAATTGCA GTTGCTACCC AACAGTTGGA TGTTCCTGCA	5340
AAAACTTTAG ATGTTTATTT TGTGAAAAA GCTGATAATG ATGCTAAAA CGGAGATTAT	5400
TCAAAGATCG GTTTTTATCA TTATTCAAGT TTGGTTTTAA TCACGTTATT TAAAATTGTA	5460
CCAATTTTCC TAGCTATTAT GCTTGGAGGG GAATATGTGG CAGACTTGTT TGCTAAGGTT	5520

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CCACCAATCG TTATGCAGGG ACTTAACTCT GCAGGTGCTT TACTACCTTC AATTGGTTTT	5580
GGTATGCTTT TAAATATGAT GCTCAAGAAA AATATGTGGG TATCTTGTG GATTGGATTC	5640
ATTTGTTCTG TGTATGGAGG AATGTCAACC ATTGGGATCT CACTAGTTGG TATTGCGGTA	5700
GCATACTTCT ACGATATGAT TGGGAAGCAA CCACAAGAAA CAACTTCAAG TAGTGATGTT	5760
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TCAAACGAAG TTTTATGTAT GGTCTTCAT GGAACATGA GAGAATGCAG AACCTAGGTT	5880
TTCTATATAC AATTCTTCCA GTATTGAAAA AACTATACCC AGACAAAGAT TCAGCTTCTC	5940
CTGCAATGAA ACGTCACCTT GAGTTTTTCA ATACTCATCA AACAGCGGCA CCATTTATTC	6000
TTGGAGTTAC TTCGCTATG GAAGAACAAG AAGGAAATGA AGGTGCAGCT TCAATTACTG	6060
GTATTAAAGT TGGCTTGATG GGGCCACTGG CTGGTCTAGG AGATAGTTTG TTCTGGCTGA	6120
CACTAGTTCC TATCTGTTTT AGTATTGGTG CGTCTTATTC TAAAGACGGC GGTGCTTTAG	6180
GTATCTTTAT CGCCTTAATA TTGTTTAATA TTATTAATAT TCCTGTTAAA TATTTGCGTT	6240
TGAAATATGG GTATACTAAG GGTCTAGTC TTATCCAAGA AAATAATACA AAAGGAACAT	6300
TGAATCGCGT TACGAGTATG GCGACAGCAT TAGGGCTAGT ACTAGTGGGT GGTTCGATTC	6360
CATCAATGGT TGGTATTAAT TTTGGATTAG AATTTAAGCA GGGGGAACCT GTTATTTCTG	6420
TTCAAGAAAT GATTACAAAA TTAATTCCAG GATTTATCCC TATGGCTTTG ACTTTATTAA	6480
TGTGTAAATT AATTAGAAAA GGAAAGAATC CGGTTGTACT AATCTTTAGT GTTATGGCTA	6540
TTGGAGTTAT TCTAGTTGTT TTAGGAATTT TGAAGTAGTA GAAAGTGTGG AGGTGGTATT	6600
TGGGATATCA CCTCCATTTT GGAAGAGAGG TAAAGAGTGA AATTATGGTA TAAGAAAGCT	6660
GCCGCAAAAT GGAATGAAGC CTTGCCGATT GGGAACGGTC ATTTAGGTGG TATGATTTAT	6720
GGTTCAGCTA CAAAAGAATG TATTCAACTA AACGATGAGA CTATTTGGTA TAGAGGAAAG	6780
TCAGATAGAA ATAATCCAGA CTCACTATTG CATCTTAAAA AAATTCGGGA ATATCTTTTA	6840
GATGGAGAAA TTCAGAAAAG CGAAGAATTG ATAAAGTTAA CAGTGTTTGC TACCCCAAGA	6900
GATCAAAGCC ACTATGAATT ACTTGGGGAA CTTTACATTG AGCATATAGA TATTCAGTCT	6960
TGTGCTCTTT CATGTATGA AAGAGAGCTA GATTTAGATA CAGCTATTTC TAATGTTGTG	7020
TTTGAGCCTA ATAGTTGTAA TTTACAAATA AAAAGAGAAT ATTTTACGAG TTTTAATAAG	7080
AATATTTTAT GTTGCCGTAT AGTGTATCA GTTCAAAAACA CATTAATTTT AAACATTAAT	7140
TTGGGTAGAA ATAAACGGTT TAATGACGAA GTATCTAAAC TGGATTCAAG TACAATTTTA	7200
ATGTCGGCCT CTGCTGGAGG TAGAAAAGGT GTTCAGTTTA AAGTAGTATG TCATTCTAAG	7260
GTACGGATG GTGAAGTAAG TGTATTGGGA GAGACAATAG TTATTCGGAA TGCTACAGAG	7320



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GTATTTCTTT ATCTCAAATC AATGACGGAT TATTGGGGAA ATATAGATAT TTCTTCTCTT	7380
CAGGGAGAAT TTAGTAGTAT TGATTACTTT ACAGAAAAAG ATGAACATGT AAAAAAATAT	7440
CAGGAGCAAT TTAATAGAGT TGATTTTAAA CTAGACTATA GTAAAGGTTG TCTTAGCATT	7500
CCAACGAATC TACTTCTTGA AAACACTAAA AAGTATAGTA ACTACTTGAC TAACTTGTTA	7560
TTTCATTATG GAAGATATCT GTTAATATCG TCTAGTCAAC CGAATGGTTT ACCTGCCAAT	7620
CTTCAAGGAA TATGGTGTGA TGAATTAAAT CCAATTTGGG GTTCTAAATA TACGATTAAT	7680
ATTAATACTC AAATGAATTA TTGGATGGTA GGTCCATGTG ATTTACCAGA AGTAGAATAT	7740
CCATTATTTG ATATGCTCGA AAGAATGAGA GAACCGGGAA GACTAACCGC TAAGAAAAATG	7800
TATGGAGCTA GAGGTTTTAC AGCACATCAT AATACGGATG GTTTTGGCGA TACGGCTCCC	7860
CAATCTCATG CCATGGGGGC TGCAATTTGG GTATTAACATA TTCCATGGTT ATGTACTCAT	7920
ATTTGGGAAC ACTATTTATA TTTCCAAGAT GAGCGTATTC TTACGGAACA TTTTGAAATG	7980
ATAAAAGAAG CATTTCTTTT CTTTGAAGAT TATTTATTG AGGTGGATGG CTACTTGATG	8040
ACAGGTCCAA GTGTCTCACC GGAAAAATAA TATCGCTTAA AAAATGGTAT TGAAGGAAAT	8100
GCTTGTCTAT CATCTACAAT TGATAATCAA ATTCTAAGAT ATTTTGTGA TTCATGCATT	8160
GGCATTGCAA AACAATTAGG AGACAATTCG GATTTTATTA GTCGTGTGAA GGAGTTAAAA	8220
AAGAAACTAC CTAACAACAAA AATAGGTAGT AATGGGCAAA TCCAAGAATG GTTAGAAGAT	8280
TATGAAGAAG TAGAGCCTGG GCATAGACAC ATTTACCTC TATTTGGGCT TTATCCTTAT	8340
AATGAGATTG ATATTCTATA AACTCCGGAA TTAGCAGAAG CAGCTAAAAT CACTATCAAT	8400
AGGAGATTAT CAAACGCTAA TTTTATCTCT TCACAGGAGA GGGAGCAAGC GATTAATAAT	8460
TGGTTAGTAA GTGGTTTGCA TGCTAGTACA CAAACAGGTT GGAGTGTCTG ATGGCTGATT	8520
CATTTTTTTG CGAGACTATA TCAAGGTGAA CCTGCTTATA ACCAGATTAA TGGTTTGTTA	8580
AATAATGCGA CTCTTGCGAA TTTATTTCTT GACCATCCAC CATTTCAAAT TGATGGTAAT	8640
TTAGGTTTGG TGAGTGGAAT TTGTGAATTA TTAGTACAGA GCCATCATAA TTGGTTATCA	8700
CTAATTCAG CTTTACCTTC TGCTTGGTCA GAAGGAGAAG TGAAAGGTTT CAGAGTAAGA	8760
GGAGGATATA AGGTATCCTT TGCTTGGAAA AATGGGGATA TAACATTCCT AAAATTGGAA	8820
GGAGGAAACA AAGATCAAAA AGTAAGAGTA AGAATATATG GCAAAAATAC TGATGTACAA	8880
AATATTGAAT TGGTATTTAA TTCAGAAAAA ATTATTGAGT TAAATTTTTA GGTATAAGTC	8940
ATGAATAAAG AAAAAATAA AAGAAAATTA ATCACAATAT TGTTTGTATG TATTGGGATG	9000
TTATGTTTTG GATTGTTAGC AGGAGTTAAG GCTGATAATC GTGTTCAAAT GAGAACGACG	9060

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ATTAATAATG	AATCGCCATT	GTTGCTTTCT	CCGTTGTATG	GCAATGATAA	TGGTAACGGA	9120
TTATGGTGGG	GGAACACATT	GAAGGGAGCA	TGGGAAGCTA	TTCTTGAAGA	TGTAAAGCCA	9180
TATGCAGCGA	TTGAACTTCA	TCCTGCAAAA	GTCTGTAAAC	CAACAAGTTG	TAT'TCCACGA	9240
GATACGAAAG	AATTGAGAGA	ATGGTATGTC	AAGATGTTGG	AGGAAGCTCA	AAGTCTAAAC	9300
ATTCCAGTTT	TCTTGGTTAT	TATGTGCGGT	GGAGAGCGTA	ATACAGTTCC	TCCAGAGTGG	9360
TTAGATGAAC	AAT'TCCAAAA	GTATAGTGTG	TTAAAAGGTG	TTTTAAATAT	TGAGAATTAT	9420
TGGATTTACA	ATAACCAGTT	AGCTCCGCAT	AGTGCTAAAT	ATTTGGAAGT	TTGTGCCAAA	9480
TATGGAGCGC	ATTTTATCTG	GCATGATCAT	GAAAAATGGT	TCTGGGAAAC	TATTATGAAT	9540
GATCCGACAT	TCTTTGAAGC	GAGTCAAAAA	TATCATAAAA	ATTTGGTGTT	GGCAACTAAA	9600
AATACGCCAA	TAAGAGATGA	TGCGGGTACA	GATTCTATCG	TTAGTGGATT	TTGGTTGAGT	9660
GGCTTATGTG	ATAACTGGGG	CTCATCAACA	GATACATGGA	AATGGTGGGA	AAAACATTAT	9720
ACAAACACAT	TTGAAACTGG	AAGAGCTAGG	GATATGAGAT	CCTATGCATC	GGAACCAGAA	9780
TCAATGATTG	CTATGGAAAT	GATGAATGTA	TATACTGGGG	GAGGCACAGT	TTATAAT'TTC	9840
GAATGTGCCG	CGTATACATT	TATGACAAAT	GATGTACCAA	CTCCAGCATT	TACTAAAGGT	9900
ATTATTCCTT	TCTTTAGACA	TGCTATACAA	AATCCAGCTC	CAAGTAAGGA	AGAAGTTGTA	9960
AATAGAACAA	AAGCTGTATT	TTGGAATGGA	GAAGGTAGGA	TTAGTTCATT	AAACGGATTT	10020
TATCAAGGAC	TTTATTTCGAA	TGATGAAACA	ATGCC'TTTAT	ATAATAATGG	GAGATATCAT	10080
ATTCTTCCTG	TAATACATGA	GAAAATTGAT	AAGGAAAAGA	TTTCATCTAT	ATTCCTTAAT	10140
GCAAAAATTT	TGACTAAAAA	TAGTGAGGAA	TTGTCTAGTA	AAGTCAACTA	TTTAAACTCG	10200
CTTTATCCAA	AACTTTATGA	AGGAGATGGG	TATGCTCAGC	GTGTAGGTAA	TTCTTGGTAT	10260
ATTTATAATA	GTAATGCTAA	TATCAATAAA	AATCAGCAAG	TAATGTTGCC	TATGTATACT	10320
AATAATACAA	AGTCGTTATC	GTTAGATTTG	ACGCCACATA	CTTACGCTGT	TGTTAAAGAA	10380
AATCCAAATA	ATTTACATAT	TTTATTGAAT	AATTACAGGA	CAGATAAGAC	AGCTATGTGG	10440
GCATTATCAG	GAAATTTTGA	TGCATCAAAA	AGTTGGAAGA	AAGAAGAATT	AGAGTTAGCG	10500
AACTGGATAA	GCAAAAATTA	TTCCATCAAT	CCTGTAGATA	ATGACTTTAG	GACAACAACA	10560
CTTACATTAA	AAGGGCATAC	TGGTCATAAA	CCTCAGATAA	ATATAAGTGG	CGATAAAAAT	10620
CATTATACTT	ATACAGAAAA	TTGGGATGAG	AATACCCATG	TTTATACCAT	TACGGTTAAT	10680
CATAATGGAA	TGGTAGAGAT	GTCTATAAAT	ACTGAGGGGA	CAGGTCCAGT	CTCTTTCCCA	10740
ACACCAGATA	AATTTAATGA	TGGTAATTTG	AATATAGCAT	ATGCAAAACC	AACAACACAA	10800
AGTTC'TGTAG	ATTACAATGG	AGACCCTAAT	AGAGCTGTGG	ATGGTAACAG	AAATGGTAAT	10860

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TTTAACTCTG GTTCGGTAAC ACACACTAGG GCAGATAATC CCTCTTGGTG GGAAGTCGAT	10920
TTGAAAAAAA TGGATAAAGT TGGGCTTGTT AAAATTTATA ATCGCACAGA TGCTGAGACT	10980
CAACGTCTAT CTAATTTTGA TGTGATTCTA TATGACAATA ATAGAAACGA AGTTGCTAAG	11040
AAACATGTTA ATAATTTGTC GGGTGAATCT GTTAGTCTAG ATTTCAAAGA AAAAGGAGCA	11100
AGGTATATTA AAGTTAAATT ACTAACGAGT GGAGTGCCTT TGAGTTTAGC AGAAGTAGAG	11160
GTTTTTAGAG AATCAGATGG TAAGCAATCT GAAGAGGATA TAGATAAAAT AACAGAAGAT	11220
AAAGTAGTCT CTACAAATAA GG TAGCTACT CAAAGTTCAA CCAATTATGA GGGTGTAGCT	11280
GCTTTAGCAG TTGATGGTAA TAAAGATGGA GATTACGGAC ATCATTTCGGT GACTCATACT	11340
AAGGCAGATT CTAACGCTTG GTGGCAGGTC GATCTGGGAG AAGAGTTTAC GGTTCCTAAA	11400
GTTGATATTT ATAATAGAAC AGATGCCGAA CCTCAGCGTT TATCTAATTT TGATGTTATT	11460
TTTCTATCTT CATCAGGAGA AGAAGTTTTT AGAAGACATT TTGATAAAGT AGTTGATGGT	11520
TTGTTATCTT TAAAAGTACC TTCTGTAGGG GCTAAGCTAG TCAAAATAGA ATTAAAATCA	11580
GCAGCTATTC CGTTAAGTTT AGCGGAAGTT GAAGTCTATG GTTCAAAGAG AACTCCGAAG	11640
AAACTTTCTA ATATTGCATT AACAAAAGAA ACTCGACAGA GTTCAACGGA TTACAATGGT	11700
TTTTCTCGTC TAGCAGTTGA TGGAAATAAA AACGGAGATT ATGGTCATCA TTCAGTGA	11760
CATACCAAAG AAGATTCTCC TTCATGGTGG GAGATAGATT TAGCACAAAC CGAAGAATTA	11820
GAAAAGTTAA TTATTTATAA TAGAACAGAT GCTGAAATTC AGAGATTATC AAATTTTGAT	11880
ATTATTATAT ATGATTCAAA TGATTATGAA GTTTTTACAC AACATATTGA CAGTTTAGAA	11940
AGCAATAATC TATCCATAGA CTTAAAAGGA CTGAAGGGAA AAAAGGTTAG AATTTCTTTG	12000
AGAAGCGCAG GAATTCCTTT AAGTTTAGCA GAGGTAGAGG TTTATACTTA TAAGTAATTT	12060
TAAAAATTAT CACCCAGGCT ACCGTAAATA TAATGGAGAT GG TAGTATGA AAGAAACAGA	12120
AAAATAAGAG GAAAATAGTA TGATTCAACA TCCACGTATT GGGATTTCGTC CGACTATTGA	12180
TGGTCGTCGT CAAGGTGTAC GCGAATCACT TGAAGTGCAA ACAATGAACA TGGCTAAAAG	12240
TGTGGCAGAT TTGATTTCOA GCACATTGAA ATATCCAGAT GGGGAACCTG TGGAATGCGT	12300
GATTTCTCCA TCTACTATTG GCCGTGTACC AGAGGCTGCA GCTTCCCATG AGTTGTTTAA	12360
AAAATCAAAT GTTTGCCGAA CAATTACAGT TACACCATGC TGGTGTTATG GTAGTGAAAC	12420
TATGGATATG TCTCCAGATA TTCTCATGC TATTTGGGGA TTTAATGGGA CAGAACGCCC	12480
AGGAGCTGTC TATCTTGAG CTGTACTAGC TTCACATGCT CAAAAGGGA TTCCAGCCTT	12540
TGGGATTATG GGAAGAGATG TTCAGGAAGC TAGTGACACA GATATTCAG AAGATGTCAA	12600

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AGAAAACTT TTACGCTATG CGCGTGCAGC TCTTGCAACT GGCTTGATGA GAGACACTGC	12660
TTACCTATCA ATGGGTAGTG TTTCGATGGG GATTGGTGGT TCTATTGTAA ATCCGGATTT	12720
CTTCCAAGAA TACTTAGGAA TGCGAAATGA ATCGGTAGAT ATGACGGAGT TCACGCGCCG	12780
TATGGACCGT GGTATTTACG ACCCTGAAGA GTTCGAACGT GCGCTCAAAT GGGTGAAGA	12840
AAACGTAAAA GAAGGATTCG ACCATAACCG TGAAGACCTT GTTTTAAGCC GTGAAGAAAA	12900
AGATAGACAA TGGGAATTG TTATTAAGAT GTTCATGATT GGACGTGACT TAATGGTTGG	12960
TAACCCAAGA CTTGCTGAAC TTGGTTTGA GGAAGAAGCG GTTGGTCACC ATGCTTTAGT	13020
AGCTGGTTTC CAAGGTCAAC GTCAGTGGAC AGACCATTTT CCAAATGGGG ACTTTATGGA	13080
AACTTTCCTC AATACTCAGT TTGACTGGA TGGTATTCGA AAACCATTTG TATTTGCGAC	13140
AGAGAATGAT TCACATAATG GTGTGTCTAT GCTCTTTAAT TATCTATTAA CAAATACTCC	13200
ACAAATCTTT GCTGATGTGC GTACTTATTG GAGCCCAGAG GCTGTAAAC GTGTAACGGG	13260
ACATACTTTA GAGGGTCGTG CTGCAGCTGG CTTCTTACAT CTAATCAACT CTGGTTCTTG	13320
TACATTGGAT GGTACAGGTC AAGCTACTCG AGATGGCAAA CCTATTATGA AACCATTCTG	13380
GGAGTTGGAA GAAAGTGAAG TGCAGGCTAT GCTTGAAAAT ACAGACTTCC CACCAGCAAA	13440
CCGCGAATAC TTCCGTGGAG GAGGATTCTC AACTCGTTTC TTGACGAAGG GGGATATGCC	13500
AGTAACAATG GTACGTCTCA ATCTTCTAAA AGGGGTGGT CCAGTGCTAC AAATTGCAGA	13560
AGGTACACA CTTGAACTTC CTGAAGATGT TCACCATACT TTAGATAATC GTACAGATCC	13620
AGGATGGCCA ACTACTTGGT TTGCTCCACG TTTGACAGGA AAAGGTGCTT TCAAGTCTGT	13680
CTATGACGTC ATGAATAAT TGGGAGCTAA TCACGGAGCC ATAACATATG GACACATTGG	13740
AGCAGACTTG ATTACCTTGG CTTCTATGTT GAGAATTCCT GTCAATATGC ATAATGTACC	13800
TGAGGAAGAT ATCTTTAGAC CTAAAAATTG GTCCTTATTT GGAACAGAAG ATCTAGAATC	13860
AGCAGACTAT CGTGCATGTC AGTTGTTGGG GCCACTACAT AAATAAACT TGTTTATATA	13920
GGAGGTGAAC TTACGTCCCT CCTATCCTTT TAAAAAGATT TGTAAACAA TTCACAAA1A	13980
ATTGAAAACG AATACAAAAA GTAATATAAT GATGTTAAAT AGATAGCGCG GAGGCGCAGG	14040
AGGAAAATTA TATGGCTATA TTTTATGTTT CGGCAGTCAA CCTTATTGGA AAAGGTGTTG	14100
TAAATGAAGT GGGTCCTTAT ATCAAGGAAC TTGGCTATAA AAAGGCACTT TTGGTGACAG	14160
ATAAGTACAT CGAAGGCAGT GATATTTTAC CTAAGACTTT AAAACCACTG GATACAGAAG	14220
GAATCGAATA T	14231

(2) INFORMATION FOR SEQ ID NO: 82:

(i) SEQUENCE CHARACTERISTICS:

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(A) LENGTH: 16995 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 82:

AGTTCTCTTA ACTTTTTTAG GATGGCATTC TCCGCTCTCA GGTACTCATT TTCTGCTgAA	60
GACGTTCTAA TTCTGTCCTC TCTTCAGGTC TCGTTTTTGG CTTACGTCCC ATTTTAGGTA	120
CTCTCCCCTCT TGTTCCTCTCA ACAATAGTAT ACCCGTTTTT CCTGTATTGT GCTAGCCAGT	180
TAAGAAGTAT CGTACGACTT GGGAGACCGT ATTCAAGAGA AACTCTATCT TTAGTCCAGC	240
CTTCATGTCA GACTTTATTA CTCATTTCTT GTTTTAAATC AGGAGAATAG TAACGATTTT	300
TTCCTTTTTT GACGAACCTCT ATTCCGTAAC GATCAATCAA TTTAATCATG TACCTAATAT	360
TAGAATTGCT TATCCCAAAT TTATTTGAAA GCTTCTCTAA GCTATATCCT TGTTTTCTAA	420
GTTTCATAGAT CTGAACCTTA TCATCATAAG TTAGTTTCAT AATAAAAACA CCCCCAAAGT	480
TAGATTTTTT CTGTCTAACT TTTGGGGTGT AGTTCATGTA CACCTGATAT GATGCGTTTT	540
ATAATTTTTA AGCCTTTTTG CCCAGCCTCG TCAAAAGTAA TGTTTTGACA CAAAATCTGT	600
GACAAAACCT TAGTTTTAAA GGTTTTTAAC TTTGTATATA CTAGTTTTAA GAAAAGGAGG	660
ATGATCTAAT GGAAGAAAAA GTATCATGTA AAGTCAGGGT TCAAAAAC TA GGGACATCGC	720
TTTCAAATAT GGTTATGCCC AATATTGGAG CATTTATTGC TTGGGGAGTA TTGACTGCCC	780
TCTTTATCGC TGATGGCTAT CTGCCAAATG AACAGTTAGC TACTGTTGTT GGTCTATGT	840
TAACGTATTT ATTGCCAATC CTGATTGGTT ACACAGGTGG ATATATGATC CATGGCCAAC	900
GTGGTGCCGT TGTAGGAGCT ATTGCTACTG TTGGTGCAAT CACAGGTTCT AGTGTTCCCTA	960
TGTTTATCGG AGCTATGGTA ATGGGCCAC TGGGAGGATG GACTATCAAG AAATTTGATG	1020
AGAAGTTCCA GGAAAAAATT CGTCCCGGAT TTGAAATGTT AGTTAATAAC TTCTCAGCTG	1080
GTCTCGTTGG TTTTGCAATTA TTGCTTTTGG CTTTCTACGC AATCGGTCCA GTCGTATCGA	1140
CTCTTACTGG AGCTGTTGGG AATGGTGTG AGGCTATTGT CAATGCTCGC CTCCTTCCTA	1200
TGGCTAATAT TATCATCGAA CCGGCTAAAG TCCTTTTCCT CAATAATGCC CTCAATCATG	1260
GCATTTTTAC TCCTCTGGGA GTAGAACAGG TAGCTCAAGC TGGTAAGTCA ATTCTCTTCC	1320
TATTGGAAGC TAATCCTGGA CCAGGTCTGG GAATTCATT AGCTTATGCT GTATTGCGTA	1380
AAGGTTCTGC TAAATCTTCT TCTTGGGGGG CAATGGTTAT TCATTTCTTC GGAGGGATTC	1440
ATGAAATTTA CTTTCCTTAT GTTATGATGA AGCCTACTCT ATTTTtagct GCTATGGCAG	1500

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GAGGTATCTC	TGGAACCTTT	ACTTTTCAAC	TCTTAGACGC	TGGTCTTAAA	TCTCCAGCTT	1560
CACCAGGTTT	TATTATTGCG	ATTATAGCTA	CGGCGCCAAA	AGGTGTTTGG	CCCCATCTAA	1620
ATGTTCTTTT	AGGTGTTTTA	GTGGCAGCAG	TTGTTTCTTT	CCTTGTAGCA	GCCCTTATTC	1680
TTCATGCAGA	CAAGTCAACT	GAGGATTCGC	TCGAAGCTGC	TCAGGCGGCT	ACCCAAGCAG	1740
CTAAGGCTCA	GTCTAAAGGT	CAGTTAGTAT	CAACTTCTGT	TGATGCAGTT	GTTTCGACAG	1800
ACTCAGTGGA	AAAAATCATT	TTGCCTGCG	ATGCTGGTAT	GGGAAGCTCT	GCTATGGGAG	1860
CTAGTATTCT	TCGAGATAAG	GTTAAAAAAG	CAGGTCTAGA	GATTCCAGTA	TCTAATCAGG	1920
CAATCTCAAA	TTTGCTTGAT	ACACCAAAAA	CATTAATTGT	TACTCAGGAA	GAAC TGACAC	1980
CAAGAGCTAA	AGACAAGAGT	CCAAGTGCTA	TTCATGTTTC	TGTTGATAAT	TTCTTAGCGT	2040
CCTCTCGTTA	TGATGAAATT	G TAGCTTCAT	TAACAGGAGC	TTCTCCAATA	GCAGAAATTG	2100
AAGGAGATAT	ACCAACTTCA	GCACCAGTAG	ATAGTCAGGA	AAGTGACCTT	AACCATATTG	2160
ATGCTGTAGT	AGTTGCTTAT	GGTAAAGCAC	AGGGAAGTGC	AACTATGGGC	TGTGAAACGA	2220
TTGGGCTAT	TTT TAGAAAC	AAGAATATTC	GTATTCAGT	TTCTACTGCC	AAAATTT CAG	2280
AATTAGGTGA	ATTTAATTCT	AAAAACATAA	TGATTGTAAC	AACTATTTCT	TTACAGGCAG	2340
AAGTGCAGCA	AGCAGCACCG	AATTCTCAAT	TTCTTATTGT	GGATAGTTTA	GTAACAACAC	2400
CAGAAATATGA	CAAAATGGCT	GCTAGAATGT	ACAAATAGAA	CTAGAGGTTT	CTAAATTACG	2460
AATGCTATTA	ACCAAACGAG	AAGAACAATT	ATTGAAGGCT	TTCTTACATG	TAGGGAAGCT	2520
TTCAATGCAA	GATATGACTG	AAATCTTACA	GGTTTCATCT	AGAACAATTT	ATCGAACTTT	2580
ATCAGATTTG	ACAGATAGCA	TGGAGCAATA	TGGAATCGAA	ATAACGAAGC	ATGGGAAATA	2640
CTATATTTTG	ACTGGAGAGT	TGGATGATTT	GCCGACAGAA	CTTGAAGTGT	TAGTTGAGTA	2700
TAGTCCCCAA	GAAAGACAAG	AGTTGATTAC	CTATCGCCTT	CTGACTGAGA	GTGGTTTTGT	2760
CACCAATGAA	GCATTGCAAG	AGTGCACGAA	AGTCAGTAAT	GTAAC TATTA	TTCAGGATAT	2820
TTCAGATATT	GATAAGCGTC	TTTTAGACTT	TGATCTGAAA	ATTGAACGAC	AAAAAGGTTA	2880
TCGGATTTCT	GGTGATT CAG	TTGGTAAGAG	AAGATTTT TG	GCTATTTTAC	TGACAAACTG	2940
TATCTCAGTA	GCAGATTTTT	CAACCGGTAA	TTTTGGGAGC	TTTGATATTT	TAGAAGCAGA	3000
TAGAACTGGG	CTGGCCAGTC	AGATTGTTAA	TAAGCAACTG	TCAGGTTTTC	CAGATATGGA	3060
TGCTAGGATG	AAGATGTTTT	TTGCGATCTT	GTTATCTCTT	ATAGGTCAGG	AGCAAAACAT	3120
TGAAAATTCA	CCTAATACTA	GTAAGCAGGC	TTTGGA AATT	TCTCAAAAAA	TTTTTCAAGC	3180
TTACTCTAAG	CAGACTGCAC	AATTTTATAG	TATTCAGGAA	ATTATCTATT	TTGCGAGCAT	3240
CTTGATGAA	TTAATCATTA	AACGTCAGGA	CAATCCGCTC	TTTACGGAGA	AATTTGATGG	3300

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TGAATTTTTC	TACAATATTT	CAAATCTGAT	TGATACGGTT	TCCATGTATA	CCAAGATTGA	3360
CTTTTTTAAG	GACAAGGTTT	TATTCAATTT	TCTTTTCCAT	CATATTCGGC	TCAGTTTAGG	3420
CGTCCCTATC	CTTTTTCAGG	GTGAAAATTT	GCCAGAATCT	ATCCAGATTT	TAGTTGAAAG	3480
GAATAAATTT	CTTTATACAG	TCATCAGTCT	TTTAGTGAAT	GATATTTTTC	CGAAATATCT	3540
TCATACAGAG	TATGAGTATG	GCATGATTGC	CCTACATTTT	ATCTCTAGCT	TAGGCCGTAG	3600
TCCAGAGATT	TATCCAGTCC	GTGTTTGTCT	TTTAACGGAT	GAACGTCGGG	TCACTAGAGA	3660
TTTATTAGTC	AGTAAAATTA	AGAGTGTTGC	TCCTTTTGTA	GAGTTGATAG	ATATTCAATC	3720
TCTAGTAGAT	TACCACAGTA	TTGATCTCAG	TCAGTATGAT	TATATTTTAT	CTACCAAGCC	3780
GCTGACTAAT	CAGGAAATCG	ATGTAATTTT	TAGTTTTCCT	ACCGTCAAAG	AATTGCTTGA	3840
ATTACAGGAA	CGACTTCAGT	ATGTACAGGC	ACATCGTACA	ATTGTCGCGC	GTGATGCTAT	3900
CGCTCCAGAG	AAAAGTTATG	ACTTGCAAGA	TTATTTAATA	TCTAGTAGTC	AGCTTTTGAG	3960
TCAATTCGAG	TTGGTTCAAT	TGGAGAATAA	TCAATCATTT	GAGCACACGG	TAGAACAAAT	4020
CATCCAATAT	CAGAAGAATG	TGAGTGACAG	AGCTTACCTA	ACAAGAAAAT	TGTTATCTCA	4080
CTTCCAGAAT	AGTCCTATGG	CTATTCCTAA	TACTGGTCTG	GTGCTTTTAC	ATAGTCAGTC	4140
TAGCAAAGTA	ACAACAAATA	GTTTTACTAT	GTTTGAAGTC	AACTACCTA	TCTCCGCATT	4200
GTCAATGAAA	CGAGAGGAAG	AAGAGGTCAA	AAGGTGTCTG	CTAATGCTAA	TGTCTAAAGA	4260
AGCTAGCGAG	GAAGCTAGAG	ATTTAATGAC	AGCTATTAGT	CAGTCGATTA	TTGAAAATCA	4320
TCTTTATACA	GAGATTTACA	AGACGGGAAA	TCAATCCATT	ATTTATCAGA	TGCTAAATAC	4380
TATTTTAAAC	GAAAAAATTA	AGAAATTGGA	GAACAAATAT	GAAACTTGAA	AAACATTTGA	4440
TTAAGCTTAA	TAAACAATTT	TCTAACAAGG	AGGAAGCTAT	TTGTTATTGT	GGGCAAGTTC	4500
TTTATGAGGG	TGGATATGTT	AATGAAGACT	ATATTGAAGC	CATGATTGAG	CGAGATAAAG	4560
AGCTATCTGT	TTACATGGGT	AACTTTATCG	CCATACCGCA	TGGAACAGAT	GCAGCAAAAA	4620
ATGATGTCCT	CAAGTCTGGT	ATTACAGTCG	TTCAAGTCCC	TAGAGGGGTT	GATTTTGGGA	4680
ATGTATCTAA	CCCTCAAGTG	GCAACGGTTC	TTTTTGGTAT	TGCTGGTATT	GGTAATGAAC	4740
ACTTAGAAAT	TATTCAGAAA	ATTTCTATCT	TCTGTGCAGA	TGTAGATAAT	GTTCTTAAAC	4800
TAGCAGATGC	TCAGTCAAAA	GAGGAAGTAT	TGCGCTTATT	TGATGCTGTT	GAATAATTGA	4860
ATTTAGTCAT	TTGTCATCTA	GTATATATGT	CCCTCAAATA	GGAAAAGGAG	AAATTGAATG	4920
AAACATTCGT	TTCATTTTGG	TGCCGGTAAT	ATCGGTCGTG	GTTTTATAGG	TGAAATTCTA	4980
TTTAAAAATG	GTTTCCATAT	TGATTTTGTG	GATGTCAATA	ATCAGATAAT	TCATGCTCTG	5040

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AATGAAAAGG	GCAAGTATGA	AATTGAAATT	GCACAGAAAG	GACAGTCTCG	TATAGAAGTA	5100
ACTAATGTGG	CTGGCATTAA	TAGCAAAGAA	CATCCTGAGC	AAGTCATTGA	AGCGATTCAA	5160
AAGACGGATA	TTATTACTAC	TGCAATCGGA	CCTAATATAC	TCCCTTTTAT	CGCCGAACCT	5220
CTAGCCAAAG	GAATCGAAGC	TCGCCGAGTT	GCAGGAAATA	CACAGGCATT	GGATGTTATG	5280
GCCTGTGAAA	ATATGATTGG	CGGGTCTCAA	TTTCTTTATC	AAGAAGTCAA	GAAATATTTA	5340
AGTCCGGAAG	GTTTGACATT	TGCTGATAAC	TACATAGGTT	TTCCAAATGC	TGCAGTAGAC	5400
AGGATTGTTT	CAGCACAAAG	TCACGAAGAT	TCCCTTTTTG	TTGTGGTCGA	GCCCTTTAAT	5460
GAATGGGTCG	TGGAAACCAA	GCGTCTTAAA	AATCCAGATT	TACGTCTAAA	AGATGTGCAT	5520
TATGAAGAAG	ATTTAGAACC	CTTTATTGAG	CGAAAACCTT	TTTCAGTCAA	TTCTGGACAT	5580
GCAACTTCAG	CTTACATTGG	TGCGCATTAT	GGTGCCAAGA	CAATTTTGGA	AGCTCTTCAA	5640
AATCCTAATA	TTAAATCTCG	GATTGAATCT	GTATTAGCTG	AAATTCGGAG	TCTCTTGATT	5700
GCCAAATGGA	ACTTTGATAA	AAAAGAATTG	GAGAATTATC	ACAAAGTCAT	TATAGAACGA	5760
CTTGAAAACC	CTTTCATAGT	GGACGAGGTT	AGTCGCGTAG	CTCGTACTCC	AATCCGAAAA	5820
TTAGGCTATA	ATGAACGATT	CATCCGGCCG	ATACGTGAAT	TGAAAGAACT	CAGTTTGTC	5880
TATAAAAACC	TACTTAAAC	AGTTGGCTAT	GTCTTTGACT	ATCGCGATGT	AAATGATGAA	5940
GAAAGTATTC	GATTAGGTGA	ATTGTTGGCT	AAACAATCAG	TCAAAGATGT	TGTTATACAA	6000
GTTACAGGTT	TAGACGACCA	AGAATTGATT	GAGCAAATG	TAGAGTATAT	TTAATCTTTT	6060
TCGAAAATCT	CTTCAAATCA	GGTTAGCATC	GCTTTGTCTT	AGGCATATGT	TGTTCTATCT	6120
ACAACTCAA	AGCAGTGCTT	TGAGCTGACT	CCGTCAGTCT	TATCTGCAAT	CTCAAAACAC	6180
TGTTTGAGTT	ATCTGCGGTA	ATCTTTCTAG	CTTGTCTTTG	ATTTTGTGTT	TTATTTATAA	6240
GGTAAAAGAA	GCTGGACAAA	AAGTCTTCAA	AATCGGGAAA	AGGCAGCCTA	TCGGGTGTTT	6300
AAAAATCTTG	ATAGGATGTC	CTTTATTATG	GAAAGCCTTA	TTGGATTTTC	TCCTCAGATT	6360
GAGTTTTTGA	TCAGCTTTAT	GAGATAGGTC	TTGCTAGAGA	TGTAGCCCAT	CATGTTATTT	6420
TTATGGACAG	TGGGAAAATT	TTGAAAAAAA	ATAATGCCCA	TCAATTCTTT	AGTCGTCCAA	6480
GAGAAGAACG	AACCAAGCAA	TTTTGGAACG	AATTCTTTTC	AATGCGATCT	ATATAGTAAA	6540
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GAAGTAGAGG	TGTACTATTC	TAGTTTCAAT	CTACTATATA	ACTGAAAAAT	TAGATAAATT	6660
AGTTTTGGAA	AATGACTAAC	CAAAAGATAT	CCAAAGTAGT	CTAAAATTGT	CTATACTTTA	6720
TGAGTGTTTT	AGTTAGGAAA	AAGGCTTGTT	GTCTATAATT	GTCTGCATTA	GTCTAGATTT	6780
TATTTATAGA	AAATGTTATA	ATAGACTGTA	TTTAAAAAAT	TTTAAGGAGA	AATGACAGAA	6840



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AGCGTATCGA	ACGCGAACGC	AACAACCTGG	CTGAATTGGT	TATCAAGGAA	GCTGCTGCTG	7320
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GTGGAAAAGG	TGAAAAC TTC	TCACTTGGAC	TTGGTTCAGG	TCAATTCATC	CCTGGTTTCG	7440
AAGACCAATT	GGTAGGTCAC	TCAGCTGGCG	AAACCGTTGA	TGTTATCGTA	ACATTCCCAG	7500
AAGACTACCA	AGCAGAAGAC	CTTGACAGTA	AAGAAGCTAA	ATTCTGTACA	ACTATCCACG	7560
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ACCTTGTTAT	CGAAGCAGTT	GCCAAAGCTG	AAGGATTTGA	TGCTTCAGAA	GAAGAAATCC	7980
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CAAGCACAGC	AACAGTAAAA	TAATCTTAAT	AAACAGAAAA	CCCACCTGAA	TTGGTGGGTT	8160
TTCTGATGCA	CTATTTTCCA	AAAATCTCTT	TGAGGTCTGT	GTCTGTAATC	CCAATCATGG	8220
CTGGGATGCG	GTCCCAGTTT	TCTTCGGTTA	GGATGTAGGA	TTGTTTCAGAG	GCACTTGATG	8280
TGACTGTTTC	AGAGACAGCT	TGTTGCTTTT	CTTCAACAAT	CTCCAGTAGA	TCACTGAAGC	8340
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GTAATTCGCC	TAGTAAGATG	AGTTTGCTTT	TGGCACGTGT	AATGGCTGTG	TAGATGAGAT	8460
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CAGCATCGTT	AACCAAATGA	ATGACCCTGT	CTCTCTTACG	ATAGTGACAC	TGAGGAGCTT	8760
CAAACTGAG	TTGATCTTTT	TGTGGGGGAT	TGAGCAGGTC	TTGCATGAGC	TGATTGATAG	8820
CATCAATCCC	TGCCGTCCCT	CGGTACATAG	GAGCCAGAAC	TTGGATATCA	CGGGCGGGAA	8880
TACCATTTCT	GAGGGCGGCA	CCTAAGATTT	TTTCAATGGT	GGCAGGAATA	TGGCCACTAG	8940
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GTCGAATCTG	ACTAGCTAGG	GTGACGATGG	TTGATTCTTT	GCTTTGTCGA	TAAATTTTTT	9060
CCAAGCGAGT	CTGAGGAATC	AAAGGAATAT	GAAGTAGATC	CGCTAGAACC	TGTCCAGGAC	9120
TGACAGAAGG	TAGCTGATCA	CTGTCACCTA	CGATGAGGAT	CTTACTGTTA	GAAGAGATAT	9180
TGGAGAAGAG	TTGATTGGCC	AGCCAAGTAT	CTACCATAGA	GAATTCATCC	ACGATGATAA	9240
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CTGTCAGGAT	AAAGACCTTA	TTCTGGATAG	CATCACAGAT	AGCCTGT TTT	TGAATGTTAT	9540
CATACTCAAT	TCCCAGTTCT	TGCTCGACAG	TAGTGATATG	TTTTTTGAATG	GTTTCTAAAT	9600
CATGACTCTT	CTGTTTTCCT	TTTTCAAGGA	TACGAACCAA	GTGACTGCGG	ATGCC'TCCT	9660
CAGCGAAAAA	GAGGCTGTTG	TCAAAGATCT	TGGTATCAAT	CTGCTGAACC	TTGTCTTCTT	9720
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ACTCAAGGAG	AGTAAGGGTT	TGTTCCAGCA	AATCCCGTGC	TTCAACATAG	GTGTCCCCTG	9840
TTTCCATACA	GGCCTGAAAA	AGACTGTGAA	CTAGACCGGC	GCGGAAGCGT	TCAGGAGCCT	9900
GACTTTCGAT	GCCTAGTTCC	TCAGCTAGTT	GGTCAGCAAT	GGTAAAGCCC	AAACCC'TGA	9960
TATCCTCAAC	CAGCTGGTAG	GGATAATTTT	CAACCACATC	AAGGGTTTCT	TCCTTGTA AA	10020
AGTCTTGAAT	CTGAAAGGCT	AGTTTGT TGG	GAATGCCGTA	GTTGGCTAGT	TTGGCCAAAA	10080
TCATCTCCGT	TCCGTAGTTG	AGACGGAGAG	TGGAGACGAA	AGCCTCGCGA	TTTTTGGCAG	10140
AGAGTCCTGC	GATGCCTTCT	AACTTTTCTG	GGTGTGCAA	AATTCGTCA	ATGGTATTTT	10200
CGCCATAGGT	ATCCACGATT	TTCTGAGCTG	TCTTGAGACC	AATCCCTTG	AAATGGCTAC	10260
TTGAAAAGTA	CTTGACCAAG	CCCTTACTAG	TTGGTTT TGC	GCGATCATAA	CGACTGATTT	10320
GCAGTTGTTC	TCCATACTTG	GAGTGCTGGA	CAATTTGCCC	CCAAAAAGTA	TAGTCTTCGC	10380

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CCTCAATTAC ATCAGCCATG GTTCCTGTGA CAATGATTTC AAAATCATCA AAATCCTCTG	10440
CGTCCGTATC GTCGATTTCCT AGGAGGAGGA TGCGATAAAA ATTGCTGGGA TTTTCAAAAA	10500
TAATCCGTTC AATAGTTCCT GAAAAATAAA CTTCCATAAA ATTCCTTTGC ATGAATAGGT	10560
GAGAGTTGGG ATTGTTTTTA TTTTATACTC TTCGAAAATA TCTTCAAACC ACGTCAGCTT	10620
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GCCATCTTCC TCATGGGCCA CCACGATATC AAAACGGTCA ATAGGAAGGT GTTTTACAAC	11280
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CAGTTCTCGT CCCAAATTTT CAAGATTTTC CAGAAAGAGA TCACGCGCAA TGACAGAAGA	11640
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CACAATTTTC TCAGGCTGAA CACCTTTTGG AAGGAGGAGA TAGATAGCCT GATTATGGAG	11820
GGCAACCTTA ACCGAAACAG CGTTGTAGCG GTCTCCGATG ACCTCGTTGT ACTTGCTGGG	11880
TGAGAGAAGG AGTGCCTGGT GCTGAATTTT TTCCTTGAGA ATAGGAGTAA TCTGACGGAT	11940
CTTTTGGTCG GTCAGAGTCT TAGAATCCCC CACACCGAGT TTTCGTAAAA AGTCGTGCTG	12000
GTCAGGTGTG ACAAAGGCAG CCACAACGTC AAGCCCACCA AAGTAGGAAC CATTTCCAC	12060
CTCATCTGTC CCAATTAAAG GAAGATTTTG TCCGCTGGTT TGCTCTACAG CTTGATAGCC	12120

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AAAGAACTG	GCGTATTTT	CAGCCCCTC	ACCCTGAAGC	AAGATTTTTC	CAGAAGTATA	12180
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GCGCAGATGA	TGAAACAATC	GCTCTTTTGT	TGGCAGTCAA	CTGTTTATCA	ACTCAGCTCA	12600
GCCGTGAGAT	TGAATTTGAC	GATAAGGAGC	AAGAGCTAGA	AGAACTCCGT	CACAAGCTTG	12660
TGACTTGTA	GCAAGAACAG	AGCAAGATTG	AGGATTCCTT	ATGATTTTCAT	TCCTTCTTCT	12720
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TTACCTGATT	TCAGCCATGG	CATCGGCTTT	TATGGCTGGC	CAGTTTTATA	AGGGGCTTGG	12840
AGAGCAATTC	CATTTATTGC	TCCCTTATGC	AAATTCGCAG	GAAGGTCAGG	GGACTTTCCT	12900
TTTCCCATCG	GATCAACTCT	TTTCACTGGA	TAAGGTCTTT	TATGCAGGTA	TCGGCTACTT	12960
GCTTGATTTT	GGGATTGTCT	ATAGCATTTG	TCGTTTACTT	GGTCTTCTCT	TACACTTGAT	13020
TCCTAGCAAA	AAACTGGGTG	GTAAGTTGTT	CCAAGTTTCA	GCAGGTATCT	TGTCCATGTT	13080
GGTGACCTTA	TTTGTCTTGC	AAATGGCCTT	GACAATCTTG	GCGACCATCC	CCATGGCAGT	13140
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AACAACCACT	TGGCTCAAAC	AAATCTGGGT	GACAAATTTA	ATCGGATAAA	AAGGGCAGGA	13260
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TACTCTTGAA	ACGCGTGCTT	CTTGCCAGCC	GAGAACTTCA	AAATTTTAC	ACCAATCTGG	13680
AAAATGTCAG	CTTGAAGAA	TTAGCCCTTT	GGTTTGAGAA	ATTACATGAT	TTTCCGCAAT	13740
TACAAGGAAA	TCTTCAGGCC	TTTAATGATG	CGGTTTTCAT	TGAAAATTTT	GCCAGTGAAG	13800
AATTGGCGCG	AATCCGTCGA	AAAATACATG	ATAGCGAGAG	TCAGGTACGC	GATGTTTTAC	13860
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GCCGTCAGGT	TTTACCAGTC	AAAAACACCT	ACCGCAATAA	GATTGCAGGT	GTCGTTTCATG	13980
ATATTTCTGC	TAGTGGAAAC	ACCGTCTATA	TCGAACCCCG	TGAGGTAGTC	AAACTGAGCG	14040
AAGAAATTGC	TAGTCTGCGA	GCAGATGAGC	GCTATGAAAT	GCTTCGCATT	CTCCAAGAAA	14100
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ATCTGGACTT	GATTTCGTGCC	AAGGTTTCGAT	TTATCCAAGA	AAGACAAGCA	GTCGTGCCTC	14220
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TGGGGGCTGG	TACTGATCCC	CAAGAGGGAG	CAGCCCTTGC	CATGGCTATT	CTGGAGGACC	14640
TTCGCCTGCG	TCAAATCAAG	ACCATGGCGA	CGACCCACTA	TCCAGAAGTC	AAGGCCTACG	14700
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CGACCTATCG	CTTTATGCAG	GGTGTTCCTG	GCCGAAGTAA	TGCCTTTGAA	ATTGCCAAAC	14820
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AGTTTGATCT	TGTTCAAGCC	CAGCAAGAAA	AACCAGTCAA	GAAGAAACAG	GTCAATGTTG	15420
TGAAACGAAC	TTCTGGGCGA	GGACCTCAAG	CTAGACTGGA	TCTTCGAGGC	AAGCGCTATG	15480
AAGAAGCCAT	GAATGAGCTA	GATACCTTCA	TCGACCAAGC	CTTGCTTAAC	AATATGGCTC	15540
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GTGCGACTAT TGTCACTTTT AAAGGATAGC AGTATTCTGG ACTTTATAAA GTAAAAACTG	15720
TTGAACTAAT TTTTACTAAT AAACACATTG ACAAAGCCA ACATTTTTTG TAAAATTAGA	15780
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CTAAGCATTC CAGAGTACAT GTATCTTGCA TGTGCTCTTT CTTTGGGGT TGAAACGATA	16020
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GATTTCGCCA GCCATCACAG CTCTCGTCTT GTCTGTCTTT GTAGCGATTG CAGTCTTTGG	16620
TGGACTCAAG TCTATTTCTA AGGTTTCAAC TACTGTTGTT CCTTTTATGG CCATCATTTA	16680
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TTTAGTCTTT ACCTCAGCTT TTAGTCCCCT TGCTGCGGTA GGTGGATTGG CTGGTGCTAG	16800
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GGGTTCTGCT CCTATTGCAG CTGCAGCTGC CAAGACAAAT GAACCAGTAG AGCAAGGTTT	16920
GATTTCCATG ACAGGAACCT TTATTGATAC CCTCATCATT TGTA CTCTAA CTGGTTTGAC	16980
CATCTTGGTA ACTGG	16995

(2) INFORMATION FOR SEQ ID NO: 83:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 28473 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 83:

CCGGGGCTTT TGTAGTATAA TAGAGATACG TTTTGAAAGT AGGAGGTATC TATGGACTTA	60
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ACTAAGCGCT	TTAATAAACA	GTTAGATAAA	ATTCAAGTTT	CGTTGATTCTG	TCAGTTTGAC	120
CAGGCTATTT	CGGAGATTCC	TGGGGTCTTG	CGTTTGACCT	TGGGGGAACC	TGATTTTACA	180
ACGCCAGACC	ATGTCAAGGA	GGCGGGCAAG	CGAGCGATTG	ATCAGAACCA	ATCCTACTAT	240
ACAGGGATGA	GTGGTCTGCT	GACTCTACGT	CAGGCAGCCA	GTGACTTTGT	TAAGGAAAAG	300
TACCAACTGG	ACTATGCTCC	TGAAAATGAA	ATCTTGGTTA	CAATTGGGGC	GACAGAGGCT	360
TTATCTGCGA	CTTTGACGGC	TATTTTGGA	GAGGGAGACA	AGGTACTTTT	GCCAGCTCCT	420
GCTTATCCAG	GCTATGAACC	GATTGTTAAC	TTAGTTGGGG	CAGAAATTGT	TGAGATTGAT	480
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GGCGTTTGGG	GCTGATTTTC	GCTCCTGCGA	CCTTCACAGC	CCAGTTAATC	AAGAGTCACC	840
AGTACTTGGT	CACTGCCGCA	AATACCATGG	CGCAACATGC	TGCGGTAGAA	GCCTTGACGG	900
CTGGTAAAAA	CGATGCGGAC	CCATGAAGAA	GGAATATATC	CAACGTCGGG	ACTATATCAT	960
CGAAAAAATG	ACTGCTCTTG	GTTTTGAGAT	TATCAAACCA	GACGGTGCCT	TCTATATTTT	1020
TGCTAAAAAT	CCAGCGGGCT	ACAATCAAGA	CTCCTTTGCT	TTTCTGAAGG	ATTTTGCTCA	1080
GAAGAAGGCC	GTTGCCTTTA	TCCCTGGTGC	AGCCTTTGGA	CGTTACGGGG	AAGGCTACGT	1140
CCGCCTATCT	TATGCAGCCA	GATGGAGAC	TATCAAAGAA	GCCATGAAAC	GACTTGAGGA	1200
GTACATGAGA	GAAGCATGAT	TCAGTCTATC	ACGAGTCAAG	GCTTGGTGCT	TTACAATCGC	1260
AATTTTCGTG	AGGATGACAA	GCTCGTCAAA	ATTTTACAG	AGCAGGTTGG	CAAACGCATG	1320
TTTTTTGTCA	AACACGCTGG	TCAGTCTAAG	CTGGCGCCTG	TTATTCAGCC	CTTGGTGCTG	1380
GCACGATTTT	TCTTGCGAAT	CAATGATGAC	GGACTCAGTT	ACATCGAAGA	CTATCATGAG	1440
GTCATGACTT	TTCCCAAGAT	TAATAGTGAC	CTCTTTGTCA	TGGCCTATGC	GACCTATGTG	1500
GCAGCTCTTG	CAGATGCTAG	TTTGCAGGAC	AATCAGCAGG	ATGCTCCCTT	GTTTGCTTTT	1560
TTGCAAAAGA	CTTTGGAGTT	GATGGAAGCA	GGCTTGGATT	ATCAGGTTTT	GACCAATATT	1620
TTTGAAATTC	AAATTTTGAC	TCGATTTGGA	ATCAGCCTCA	ATTTTAATGA	GTGTGTCTTC	1680
TGCCATCGGG	TTGGTCAGGC	TTTTGACTTT	TCTTTCAAAT	ATGGAGCCTG	CCTCTGTCCA	1740
GAGCATTATC	ATGAGGATAA	GAGACGTTGT	CATCTCAATC	CCAATATCCC	CTATCTGCTC	1800

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AATCAATTTC AAGCTATTGA TTTTGAGACT TTGGAGACCA TTTCGCTCAA GCCTGGAATC	1860
AAGCAAGAGC TACGCCAATT TATGGATCAA TTATATGAAG AGTACGTTGG GATTCACCTA	1920
AAATCAAAGA AATTTATTGA TTCCCTAGCA GACTGGGGAC AATTACTAAA AGAGGAAAAG	1980
AAATGAAAAA AATCGCAGTA GATGCCATGG GGGGCGATTA CGCACCTCAG GCCATTGTTG	2040
AGGGTGTCOA TCAAGCCCTA TCTGACTTTT CAGATATCGA GGTTCAACTT TACGGAGATG	2100
AAGCTAAAAT CAAGCAATAT CTGACAGCGA CAGAGCGCGT CAGCATTATC CATACGGATG	2160
AGAAGATTGA TTCGGATGAT GAACCTACGA GAGCTATTCT GAATAAGAAA AATGCCAGTA	2220
TGGTATTGGC AGCCAAGGCT GTCAAAGATG GTGAAGCAGA CGCTGTCTT TCGGCTGGGA	2280
ATACAGGTGC CTTGTTGGCA GCAGGATTCT TCATCGTGGG TCGTATCAAG AATATCGACC	2340
GTCTGGACT CATGTCTACC TTGCCTACCG TTGATGGAAG AGGTTTTGAC ATGCTAGACC	2400
TTGGTGCCAA TGCAGAAAAT ACAGCCCAGC ACCTCCATCA ATATGCGGTT CTAGGTTCTT	2460
TCTATGCTAA AATGTCCGT GGCATTGCGC AACCACGCGT TGGTTTGCTC AACAAACGGAA	2520
CAGAGAGTAG CAAGGGCGAC CCGCTTCGTA AGGAACTTA TGAATTACTG GCGGCTGATG	2580
AAAGTTTGAA CTTTATCGGA AACGTGGAAG CGCGTGATTT GATGAATGGC GTTGCAGATG	2640
TTGTGTGGC AGATGGTTTC ACGGGAAACG CTGTGCTCAA ATCCATCGAA GGGACAGCTA	2700
TGGGAATCAT GGGCTTGCTC AAGACAGCTA TTACAGGTGG TGGTCTTCGA GCGAACTAG	2760
GTGCCCTCCT TCTCAAGGAC AGCCTCAGTG GTTTGAAAAA ACAGCTCAAT TATTTCAGATG	2820
TTGGTGAGC GGTCTTGTTT GGTGTTAAGG CACCTGTTGT CAAGACTCAT GGCTCAAGCG	2880
ATGCCAAGGC TGTATATAGT ACGATTCTGC AGATCCGTAC CATGCTAGAA ACAGACGTGG	2940
TTGCCCAGAC TCGCGTGAA TTTTCAGGAG AATAAAAGAG ATGACAGAAA AAGAAATTTT	3000
TGACCGTATT GTGACCATTA TCCAAGAGCG ACAGGGAGAG GACTTTGTCTG TGACAGAATC	3060
CTTGAGTCTG AAAGACGATT TGGATGCGGA TTCTGTTGAC TTGATGGAGT TTATCTTGAC	3120
TCTGGAAGAT GAATTTAGTA TCGAAATCAG CGATGAAGAA ATTGACCAAC TCCAAAACG	3180
AGGAGATGTG GTTAAATCA TTCAAGGAAA ATAGCAATCG GAGTTCCAAG TCAACGGAAG	3240
TAGATGGTTT TTAGAAATGA GAAATATCGG ACAAGCTGGT AAAATCTTGG CTGACAGTGG	3300
TTATCAAGGG CTCATGAAGA TATATCCTCA AGCACAAACT CCACGTAAAT CCAGCAAAC	3360
CAAGCCGCTA ACAGTTGAAG ATAAAGCCTG TAATCATGCG CTATCTAAGG AGATAAGCAA	3420
GGTTGAGAAT ATCTTTGCCA AAGTAAAAAC GTTTAAAAATG TTTTCAACAA CCTATCGAAA	3480
TCATCGTAAA CGCTTCGGAT TACGAATGAA TTTGATTGCT GGTATTATCA ATCATGAACT	3540
AGGATTCTAG TTTTGCAGGA AGTCTAATAG TAAAAAGTG ATTAGAAAAC ATCTTTTTTA	3600



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AAAATAGAGA	TGATTTTGAA	ACAAAAAGC	TAATTCAAGA	CGTTTCGATG	CCAATTCAAG	3660
ATTTGGATGA	AAAAAATTAA	TAGATACTGT	TATACTAAAC	TTGTCAAGTT	TGTAACAAGA	3720
CAAAATATTAA	AAATAAAAAA	GAGGTATTCG	TTATGAATAC	AAAAACGATG	TCACAATTTG	3780
AAATTATGGA	TACTGAGATG	CTTGCTTGCG	TTGAAGGTGG	CGGATGCAAT	TGGGGAGATT	3840
TTGCCAAAGC	AGGTGTTGGA	GGAGGAGCAG	CACGAGGTCT	TCAGCTAGGA	ATTAAAACAA	3900
GAACATGGCA	AGGTGCAGCA	ACTGGTGCTG	TGGGAGGAGC	TATACTTGGA	GGTGTGGCCT	3960
ATGCAGCGAC	ATGTTGGTGG	TAATTATGGA	TTTTAAAAAGT	TTTATTATTG	GTTTAGTAGT	4020
TGGTATATTT	GGTCCTTATA	TGGATGATTT	AATTAGAAAA	AAATTTTTTAA	AGTCTTCGGA	4080
GAAGAAAACA	GAAAAATCTG	TTAAAAAATA	ATCAAAACTA	TAAATGATGA	ATCTGAATCA	4140
AAATTATTTT	GCGCATGTAA	AGAGGAGTCT	TATAGTAACG	AGTCAAAAAA	GGAGTAACTA	4200
TGAATCGTAA	TTTAGAACGG	TGTTATCTAT	TCTGACTAGG	AATAGATCAT	ACCAGAGGTA	4260
GCTTAGAAAT	AGCAGAGACA	TTAGAAATTG	AAGTAATAAA	TAGGATGTCG	TAAGTGTTAC	4320
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CAATAGCATA	TTTTTAGTGG	GCAGGACTCT	TGTTCTGCCT	ATTTTTTTTAT	CCAAAAAGTG	4440
CAGTTGGGAG	GGAGATAGGC	TCATTTGGGA	AGGAAGTCCA	GTTTTTGTTT	AGTGATTGGG	4500
GTAAGATAGT	TGTTATCAGA	TGAGTTAATA	CTCTTCGAAA	ATCAAATTCA	AACCACGTCA	4560
ACGTCGCCTT	GCCGTATATA	TGTGACTGAC	TTCGTCAGTC	CTATCTACAA	CCTCAAAACA	4620
GTGTTTTGAG	CAGCCTACGG	CTAGTTTCCT	AGTTTGCTCT	TTGATTTTCA	TTGAGTATTA	4680
GGGAAAAGGA	GATGAATATG	AAATTTGGGA	AACGTCATTA	TCGTCCGCAG	GTGGATCAGA	4740
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TGGCTCACTT	GCGAGAATTG	GCTAAGACGA	CCATGGATGG	GACGACGGCT	TTGGGCTTGG	4860
TCAAGGTGGC	AGAGGAGATT	GGTTTTGAGA	CGCGAGCCAT	TAAGGCAGAT	ATGACGCTTT	4920
TTGACTTGCC	GGATTTAACT	TTTCCTTTTG	TTGCCCATGT	GCTTAAGGAA	GGGAAATTGC	4980
TCCACTACTA	TGTGGTGACT	GGGCAGGATA	AGGATAGCAT	TCATATTGCC	GATCCAGATC	5040
CCGGGGTGAA	GTTGACTAAA	CTGCCACGTG	AGCGTTTTGA	GGAAGAATGG	ACAGGAGTGA	5100
CTCTTTTTAT	GGCACCTAGT	CCAGACTATA	AGCCTCATAA	GGAACAAAAA	AATGGTCTGC	5160
TCTCTTTTAT	CCCTATATTA	GTGAAGCAGC	GTGGCTTGAT	TGCCAATATC	GTTTTGGCAA	5220
CACTCTTGGT	AACCGTGATT	AACATTGTGG	GTTCCTTATTA	TCTGCAGTCT	ATCATTGATA	5280
CCTATGTGCC	AGATCAGATG	CGTTCGACAC	TAGGGATTAT	TTCTATTGGG	CTAGTCATCG	5340

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TCTACATCTT	CCAGCAAATC	TTGTCTTACG	CTCAGGAGTA	TCTCTTGCTT	GTTTTGGGGC	5400
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CCTTCTTTGC	GACACGCAGG	ACAGGGGAGA	TCGTGTCTCG	TTTTACAGAT	GCTAACAGTA	5520
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TTATTTCCCT	TGTTCTATTT	TCACAAAATA	CCAATCTCTT	TTTCATGACT	TTATTGGCGC	5640
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AGACTATCAA	GTCCTTGACC	AGTGAAAGTC	AGCGTTACCA	AAAAATTGAC	AAGGAATTTG	5820
TGGATTATCT	GAAGAAATCC	TTTACCTATA	GTCGAGCAGA	GAGTCAGCAA	AAGGCTCTGA	5880
AAAAGGTTGC	CCATCTCTTG	CTTAATGTCG	GCATTCTCTG	GATGGGGGCT	GTTCTGGTCA	5940
TGGATGGCAA	GATGAGTTTG	GGCAGTTGA	TTACCTATAA	TACCTTGCTG	GTTTACTTTA	6000
CTAATCCTTT	GGAATAATC	ATCAATCTGC	AAACCAAGCT	TCAGACAGCG	CAGGTTGCCA	6060
ATAACCGTCT	AAATGAAGTG	TATCTAGTAG	CTTCTGAGTT	TGAGGAGAAG	AAAACAGTTG	6120
AGGATTTGAG	CTTGATGAAG	GGAGATATGA	CCTTCAAGCA	GGTTCATTAC	AAGTATGGCT	6180
ATGGTCGAGA	TGTCTTATCG	GATATCAATT	TAACCGTTCC	CCAAGGGTCT	AAGGTGGCTT	6240
TTGTGGGGAT	TTCAGGGTCA	GGTAAGACGA	CTTTGGCCAA	GATGATGGTT	AATTTTTTACG	6300
ACCCAAGTCA	AGGGGAGATT	AGTCTGGGTA	GTGTCAATCT	CAATCAGATT	GATAAAAAAG	6360
CCCTGCGCCA	GTACATCAAC	TATCTGTCTC	AACAGCCCTA	TGTCTTTAAC	GGAACGATTT	6420
TGGAGAATCT	TCTTTTGGGA	GCCAAGGAGG	GGACGACACA	GGAAGATATC	TTACGGGCGG	6480
TCGAATTGGC	AGAGATTCTGA	GAGGATATCG	AGCGCATGCC	ACTGAATTAC	CAGACAGAAT	6540
TGACTTCGGA	TGGGGCAGGG	ATTTACAGTG	GTCAACGTCA	GAGAATCGCT	TTGGCGCGTG	6600
CTCTCTTGAC	AGATGCGCCG	GTCTTGATTT	TGGATGAGGC	GACTAGCAGT	TTGGATATTT	6660
TGACAGAGAA	GCGGATTGTC	GATAATCTCA	TTGCTTTGGA	CAAGACCTTG	ATTTTCATTG	6720
CTCACCGCTT	GACTATTGCT	GAGCGGACAG	AGAAGGTAGT	TGTCTTGAT	CAGGGCAAGA	6780
TTGTCTGAAGA	AGGAAAGCAT	GCTGATTTGC	TTGCACAGGG	TGGCTTTTAC	GCCCATTTGG	6840
TCAATAGCTA	GAAAGAGGAG	AGGATGAAAC	CAGAATTTTT	AGAAAGTGCG	GAGTTTTATA	6900
ATCGTCGTTA	CCATAATTTT	TCCAGTAGTG	TGATTGTACC	CATGGCCCTT	CTGCTTGTGT	6960
TTTTACTTGG	CTTTGCAACT	GTTGCAGAGA	AGGAGATGAG	TTTGTCCACT	AGAGCTACTG	7020
TCGAACCTAG	TCGTATCCTT	GCAAATATCC	AGTCAACTAG	CAACAATCGT	ATTCTTGTCA	7080
ATCATTTGGA	AGAAAATAAG	CTGGTTAAGA	AGGGGGATCT	TTTGGTTCAA	TACCAAGAAG	7140

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GGGCAGAGGG	TGTCCAAGCG	GAGTCCTATG	CCAGTCAGTT	GGACATGCTA	AAGGATCAAA	7200
AAAAGCAATT	GGAGTATCTG	CAAAGAGCC	TGCAAGAAGG	GGAGAACCAC	TTTCCAGAGG	7260
AGGATAAGTT	TGGCTACCAA	GCCACCTTTC	GCGACTACAT	CAGTCAAGCA	GGCAGTCTTA	7320
GGGCTAGTAC	ATCGCAACAA	AATGAGACCA	TCGCGTCCCA	GAATGCAGCA	GCTAGCCAAA	7380
CCCAAGCCGA	AATCGGCAAC	CTCATCAGTC	AAACAGAGGC	TAAAATTCGC	GATTACCAGA	7440
CAGCTAAGTC	AGCTATTGAA	ACAGGTGCTT	CCTTGGCCGG	TCAGAATCTA	GCCTACTCTC	7500
TTTACCAGTC	CTACAAGTCT	CAGGGCGAGG	AAAATCCCCA	AACTAAGGTT	CAGGCAGTTG	7560
CACAGGTTGA	AGCACAGATT	TCTCAGTTAG	AATCTAGTCT	TGCTACTTAC	CGTGTCCAGT	7620
ATGCAGGTTT	AGGTACCCAG	CAAGCCTATG	CGTCAGGGTT	AAGCAGTCAA	TTGGAATCCC	7680
TTAAATCCCA	ACACTTGGCA	AAGGTTGGTC	AGGAATTGAC	CCTTCTAGCC	CAGAAAATTT	7740
TGGAGGCAGA	GTCAGGTAAG	AAGGTACAGG	GAAATCTTTT	AGACAAGGGG	AAAGTTACGG	7800
CGAGTGAGGA	TGGGGTGCTT	CATCTTAATC	CTGAGACCAG	TGATTCTAGC	ATGGTTGCAG	7860
AAGGTGCCCT	ACTAGCCCAA	CTTTATCCAT	CTTTGGAAG	AGAAGGGAAA	GCCAAACTCA	7920
CAGCTTATCT	AAGTTCAAAA	TATGTAGCAA	GAATCAAGGT	CGGTGATTCT	GTTCGCTATA	7980
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CGACAGCTAC	TAAGACTGAG	AAAGGGAATT	TCTTTAAAA	CGAGGCGGAG	ACTAATCTAA	8100
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GCAAGAAAAG	TTACCTACGT	TATTATTGG	ATCAATTTTT	GAACAAAGAG	TAATGTTTCGT	8220
GTTTTTAGAG	TTAAATAATT	TTTAACTGT	GAGAAAGATT	CTTCTTGCAG	TTTTTCTTTT	8280
ACAATTTTGG	AAAAACATCT	ACTATTATT	CGGTTAAATT	CTTGTGTTTT	TTGGTTTTTT	8340
GTGGTAAAT	GTGCTCAAGT	AATACGAAAG	GCGAACTTTA	AAATGTCAAA	ACAATTGATC	8400
TATTCGGGAA	AAGCTAAAGA	TATCTATACA	ACTGAGGATG	AAAATCTTAT	TATTTCAACT	8460
TACAAGGACC	AGGCGACTGC	TTTCAACGGT	GTCAAGAAGG	AGCAGATTGC	AGGTAAGGGA	8520
GTCTTGAATA	ATCAGATCTC	ATCTTTTATT	TTTGAGAAAT	TAAATGTGGC	TGGTGTGGCG	8580
ACTCACTTTG	TGGAGAAACT	TTCAGACACG	GAACAACTCA	ATAAAAAGGT	TAAGATTATT	8640
CCTTTGGAAG	TCGTGCTCCG	CAACTATACT	GCTGGTTCCT	TTTCAAAACG	TTTTGGTGTG	8700
GATGAGGGAA	TCGCCTTGGA	GACTCCGATT	GTCAATTTT	ACTACAAAA	TGATGATTTG	8760
GATGATCCAT	TTATCAATGA	TGAGCATGTG	AAATTCCTAC	AGATTGCGGG	TGACCAGCAG	8820
ATTGCCTACT	TGAAGGAAGA	AACGCGTCGT	ATCAATGAAC	TATTGAAAGT	CTGGTTTGCT	8880

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GAGATTGGGC TTAAATTGAT TGACTTTAAG CTAGAGTTCC GTTTTGACAA GGATGGCAAG	8940
ATTATCTTGG CAGACGAATT TTCACCAGAT AACTGCCGCT TGTGGGACGC TGATGGCAAC	9000
CACATGGATA AGGATGTTTT CCGTAGAGGA TTGGGAGAAC TAACCGACGT TTATGAGATT	9060
GT TTGGGAAA AGTTGCAGGA ATTGAAATAA TCTGTTTGCA ACGGAAAACC TTCGTCTCTC	9120
AACTAAAAGG ACTCAGGCTG AAAAGGTCCC CCAGACCTTT TCACTCTGTA GAGAACTAGG	9180
TGAACTAACA GATGTTTACG AAATTGTCTG GAAAAAGTTG CAGGGTTTAA AATAACAACC	9240
TCAAGGCTGT TTGGGAATAT TGCAAGAGCT GAAATAAAGG AATAAGAATT GATGGATAAA	9300
CGTATTTTGG TTGAAAAAAA GGCTGATTTT CAGGTCAAGT CAGAGAGTTT GGTTAGAGAG	9360
CTCCAGCACA ACTTGGGACT GTCAAGCTTG AAAAGTATTC GTATTGTGCA AGTATATGAT	9420
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GTAACCGACC ATGTTTTAGA TGAAGTATCT GTGCAGGCGG ATCTTGCTAA CTATGCTTTC	9540
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CGTGCTAATG GACGATTGGA TGATATGGAA GTCTCTGACG AAATCAATGC CTGCTCAGTT	10200
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GCTGGTGATA TTACAGCACC GATTTTCGAA ACTCGCGCTG GGAAATTGCC ACAACAAGTC	10440
ATTTCTAAAA CAGCAGCTCA TGGTTATTCT TCATATGGTA ACCAGATTGG GCTTGCAACA	10500
ACCTACGTTT GTGAATACTT CCACCCAGGC TTTGTAGCTA AACGTATGGA ACTTGGTGCC	10560
GTTGTTGGTG CGACTCCCAA GGGCAATGTT GTCCGTGAAA AACCTGAAGC AGGTGATGTG	10620
ATCATCCTTC TCGGAGGCAA AACAGGTCGT GATGGTGTG GTGGTGCAC GGGCTCTTCT	10680

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AAGGTTCAAA	CAGTTGAGTC	TGTAGAGACT	GCTGGTGCTG	AGGTTCAAAA	AGGAAATGCC	10740
ATCGAAGAAC	GCAAGATTCA	GCGCCTCTTC	CGTAATGGCA	ATGTCACCTG	TCTGATCAAG	10800
AAGTCCAATG	ACTTTGGGGC	AGGCGGTGTC	TGTGTGGCTA	TCGGTGAATT	GGCAGACGGT	10860
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GCCATCTCTG	AATCACAAGA	ACGGATGGCG	GTCGTGGTTC	GTCTGAAGA	TGTGGATGCC	10980
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CTCCCAGAAG	AGCGTCAAAC	ATCTGCTGAA	ACACTGGAAT	CAGATACCCCT	TACGGTTCTA	11220
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TTTCCAGGAA	CCAACTCAGA	ATATGATTCA	GCTAAGGCCT	TCGAAAAAGA	AGGTGCAGAG	12300
GTCAATTTGG	TGCCATTTCG	GACCTTGAAT	GAAGAAGCTA	TTGTCAAGTC	AGTTGAAACT	12360
ATGGTTGACA	ATATCGACAA	GACTAATATT	CTCTTCTTTG	CTGGTGGATT	CTCGGCTGCG	12420

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GATGAACCAG	ATGGTTCAGC	TAAGTTTATC	GTCAATATCC	TGCTTAATGA	AAAAGTGCCT	12480
GTGGCTATTG	ATAGCTTTAT	CGCCCGTGGT	GGTTTGATTA	TCGCTATTTC	TAATGGATTG	12540
CAAGCCTTAG	TCAAATCGGG	TCTCCTACCC	TACGGAAACT	TTGAAGCTGC	TAACAGTACT	12600
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CCTGTTTCGC	ACGGTGAAGG	GAAGTTTGTC	GTGACGGCTG	AGGAATTTGC	AGAGCTCCGT	12780
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ACGAGGGCAT	TCAGTATGAC	AGCTATACAG	ATGATACCCA	GTTGGCGGTT	TGTTCTATGG	13860
AGTATATCTA	CTTTGCTCGC	CCTGATTCTA	ATATCCACGG	TGTCAATGTC	CATACGGCAC	13920
GTAAGAGAAT	GGGAGCGCAA	TTGGCGCGAG	AATTTAAGCA	TGAGGCAGAT	ATTGTAGTTG	13980
GTGTGCCCAA	TTCTTCCCTA	AGCGCGGCTA	TGGGATTTGC	GGAAGAATCA	GGCTTACCAA	14040
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AATTGCGGGA	GCAAGGAGTG	CGGATGAAAC	TGTCTGCTGT	TTCGGGTGTT	GTCAAAGGCA	14160
AACGTGTGGT	CATGGTGGAT	GATTCCATTG	TACGTGGAAC	AACCTCTCGT	CGTATCGTTC	14220

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AGCTCTTGAA	AGAAGCGGGT	GCGACTGAGG	TTCACGTTGC	CATTGGAAGT	CCTGCACTAG	14280
CGTATCCATG	TTTCTACGGG	ATTGATATCC	AGACCCGTCA	GGAGCTGATT	GCAGCCAATC	14340
ATACGGTCGA	AGAAACTCGC	CAAATCATTG	GTGCGGACAG	TCTGACTTAT	CTTTCAATTG	14400
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CTTACTTTGA	CGGTGACTAC	CCAACGCCTC	TTTATGACTA	CGAAGAAGAC	TATCGTAGAA	14520
GTTTGGAAGA	AAAGACCAGT	TTTTACAAGT	AGGCGACAGA	TTCTCCATTA	AAGAAAAGGA	14580
AAAAATAAAT	GACAAATAAA	AATGCATATG	CCTCACGTCT	CACTACTGAC	TAAAGGCTTA	14640
AGCATTTAGT	CAGTAGACGC	TTTGTCTTAT	AGGATCAAAG	CTAGAGCCCT	GACTAGTATT	14700
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GGGAGCTCTT	GGTGGCTTTG	GTGGTATGTT	TGACCTTTCC	AAGACTGGGG	TTAAAGAACC	14940
CGTCTTGATT	TCAGGGACTG	ACGGTGTCTG	AACCAAGCTC	ATGTTGGCTA	TCAAGTACGA	15000
CAAGCACGAT	ACCATCGGGC	AGGACTGTGT	GGCCATGTGT	GTCAACGACA	TCATTGCTGC	15060
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GCTAGAACAA	GTGGTTGCTG	GTGTGGCAGA	AGGTTGTGTG	CAGGCTGGTG	CTGCCCTCAT	15180
CGGTGGGGAA	ACGGCTGAAA	TGCCGGGCAT	GTACGGCGAA	GACGACTATG	ACTTGGCTGG	15240
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ATTGTTGGAT	GAAGCAGTCT	ATGAAATTGG	TCGCATCGTC	AAGAAAGAAA	ACGAAAGTGT	15780
CATTATCAAA	TGAAAAAAT	AGCGGTTTTT	GCCTCTGGTA	ATGGCTCAAA	TTTTCAGGTG	15840
ATTGCCGAAG	AATTTCCAGT	GGAGTTTGTC	TTTTCAGACC	ATCGTGATGC	CTATGTGCTT	15900
GAGCGTGCAA	AGCAGCTCGG	CGTTCTGTCC	TATGCTTTTG	AACTCAAGGA	GTTTGAGAGC	15960

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AAGGCAGACT	ACGAAGCAGC	CCTTGTCGAA	CTCTTGGAAG	AACACCAGAT	TGACTTGGTT	16020
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ATTGTCAACA	TTCATCCAGC	CTACTTGCCA	GAATTTCCAG	GAGCTCATGG	GATTGAGGAT	16140
GCTTGGAATG	CTGGCGTGGG	TCAGTCTGGT	GTGACCATTG	ACTGGGTGGA	TTCGGGTGTG	16200
GATACAGGCC	AGGTCATCAA	ACAGGTTCGT	GTGCCACGAC	TAGCTGATGA	TACCATTGAC	16260
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ATATCCGTGA	TGCAGATGCT	GCTATCCGTA	TCATCCGTGA	CTTCAAAGAT	AGTCCAACCG	17760



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CCAGTCCCAC	ACTTACCACA	GAGTGTAAGT	GATACAGCGG	TTGACACCAT	TGTCAAGCCA	19380
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CAAGACTGCG	ACTGGTGGCT	ACGATGGTCA	TGGACAAAAG	GTTATTGCTT	CAGAAGCAGA 21240
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AAAGGGCAAA	AAGGTCCTTC	AGCAATGCCT	CACAAACGCA	ACCCAATCGG	TTCTGAAAAT	22980
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GGTTTGTGAG	CCTCTGCTTT	CGCTTCATCT	TTTTTAGCTG	GTTTATCCTT	GTCAGTCTTG	27000
TCTGTATTTG	ACTCTTTAGA	ATCAACCTCT	TTCGCTTCTT	CCTTTTTAGG	GCTAGCTTCT	27060
TCTGCCTTTT	TATTAGCAGT	TTCTTTTTCA	GCAGAAGTTG	GAGTTACCAC	TTCTGCTTTA	27120
TCACTAGGAG	TTGAACCTAA	TTCTCTTGT	GGTTTTTCTT	CTGTTTTTGG	AAGACTAGCT	27180
ACCTTATCAG	TAGCTGGAGT	TTCTGTTTCT	ACAGTTTTTG	GAGCTTCTGG	TTGAAGCACT	27240
GCTTTAGGTG	TTTCCTCAGT	CCGATTTTCG	GATGATTGAG	GGGAATCAGA	AACCGTATGG	27300
ATGGTCGGTT	GGTTTTCTGT	AGTAGTAGGA	GTAACCTCAT	CGGCTGCAAC	AGTCTGTGCT	27360
TGGAAGGCAA	ATCCAATTAG	AACAGAAGCT	GCTCCTACAG	CGTATTTACG	AATAGAAAAA	27420
CGCTGTTGTT	TTTCATGTTT	CATTGCAAAA	CCTCCTGATT	GCATTGTTAT	ATTGATAGCG	27480
ATTATATAAA	TCAACGCCTT	TATTTTATTT	CTTATATTAA	TTTCTTATAT	TAACGAGAGT	27540
CAAGAGGAGA	TGACAAAAAA	CTATAATAAG	TATAAAAAAA	TATAAAATTT	AAACTTAAGA	27600
TTTCAGATTG	GTGCGAAAAA	ATACGTATAT	ATATCTAGTA	TAATTTTTGG	TTCTATTTCT	27660
ATAAAATATT	CCACAAATTA	TAGAATTTTC	CAAAAATAGG	TAAGCGCTAC	CTTTTGGGTG	27720
TAGTATAATA	AGCATAGAAA	AAGCCCAAGC	GATTAGCTCA	GGTTTTCTTC	TTAGTGATCA	27780
CGGTCACATG	AGATAAATTT	AATCTTGTAG	TAATCAGATC	GTTTGTAAGT	TTCACTGTAT	27840
TCTAAACTTT	GGCCAGTTGA	TTGAGTTTGT	GTGATTTTAG	TTTGTAGGAC	AGTAGGGAAT	27900
TGTTTCATCGA	CTCCGAGGAC	TGAAGCTGCA	TGTTCTGGAG	TTGGAAAGAC	TATTTTCGTTG	27960
ATTTCTTCAA	AGTGTTCATC	ATTCATGTGA	ATGTGGTAGT	CTAACTTGAA	ACGATTATAG	28020
ATAGAACTAT	AGTATTCAAG	GTTTGGATAA	TTTGCGTTGA	TATATTGTTC	TGGGATGTAG	28080
GATGTATGGT	AGATATAAAC	GACACCGTTT	GATTCGCGGA	TACGTTCAAT	CTTGATGTAG	28140
AATTGATCGC	CGCGTAGACC	CAATTTTTTC	AAGTAAACAA	GCTTGTTTCC	GCGTTCAATT	28200
GAAAGAACAG	TTACCTTATC	ATCTTTAGCA	TTGAAGAGTT	CAATATCTGA	AAACTCTACA	28260
AGCTTGTGTT	TGCGTGCACG	TGAAACGAAG	GTTCTTTTTC	CTTGTTGGCG	GACAATATAG	28320
CCATCTTTGG	CAAGGTCGTT	TAAGGCGCGA	ACAACTGTGA	TAGAGCTGAC	ATCGTACATT	28380

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GAAATGAGTT CTGCTTCAGT GTAAAATTTA TCTCCACTGC TAAACTGCCC AGAGATGATT 28440  
 TTATTTTTTA ATTCGTCTTT TATGTATTGA TGG 28473

(2) INFORMATION FOR SEQ ID NO: 84:

- (i) SEQUENCE CHARACTERISTICS:  
 (A) LENGTH: 6749 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 84:

CCTGATGGGT GGTATGCGAG GATACAGTTC TGAATATCGC CGTTACTTAA TTAATGGACG 60  
 CGAAGTCACA CCTGAGGAAT TTGCTCACTA TCGTGCGACT GGTCAATTAC CAGGAAATGC 120  
 AGAAACTGAT GTGCAATGC CACAACAGGC ATCAGGTATG AAACAAGGCG GTGTCCTTGC 180  
 AAAACTAGGT CGAAACTTAA CAGCAGAAGC GCGTGAGGGC AAGTTGGATC CTGTTATCGG 240  
 ACGAAACAAG GAAATTCAAG AACATCTGA AATCCTCTCA CGCCGCACCA AGAACAATCC 300  
 TGTTTTGGTC GGAGATGCAG GTGTTGGTAA GACAGCAGTT GTCGAAGGTC TAGCGCAAGC 360  
 CATTTGTGAAC GGAGATGTTT CTGCTGCTAT CAAGAACAAG GAAATTATTT CTATTGATAT 420  
 CTCAGGTCTT GAGGCTGGTA CTCAATACCG TGGTAGCTTT GAAGAAAATG TCCAAAACCTT 480  
 AGTCAATGAA GTGAAAGAAG CAGGGAATAT TATCCTCTTC TTGATGAAA TTCACCAAAT 540  
 TCTTGGTGCT GGTAGCACTG GTGGAGACAG TGGTTCTAAA GGAAGTTCGG ATATTCTCAA 600  
 GCCAGCTCTC TCTCGTGAG AATTGACAGT GATTGGGGCA ACAACTCAAG ACGAATACCG 660  
 TAACACCATC TTGAAGAATG CTGCTCTTGC TCGTCGTTC AACGAAGTGA AGGTCAATGC 720  
 TCCTTCGGCA GAGAATACTT TTAATAATCT TCAAGGAATT CGTGACCTCT ATCAACAACA 780  
 CCACAATGTC ATCTTGCCAG ACGAAGTCTT GAAAGCAGCG GTGGATTATT CTGTTCAATA 840  
 CATTCCTCAA CGTAGCTTGC CAGATAAGGC TATTGACCTT GTCGATGTAA CGGCTGCTCA 900  
 CTTGCGCGCT CAACATCCAG TAACAGATGT GCATGCTGTT GAACGAGAAA TCGAAACGGA 960  
 AAAAGACAAG CAAGAAAAAG CAGTTGAAGC AGAAGATTTT GAAGCAGCTC TAAACTATAA 1020  
 AACACGCATT GCAGAATTGG AAAGGAAAAT CGAAAACCAC ACAGAAGATA TGAAAGTGAC 1080  
 TGCAAGTGTC AACGATGTGG CTGAATCTGT GGAACGAATG ACAGGTATCC CAGTATCGCA 1140  
 AATGGAAGCT TCAGATATCG AACGTTTGAA AGATATGGCT CATCGCTTGC AAGACAAGGT 1200  
 GATTGGTCAA GATAAGGCCG TAGAAGTTGT AGCTCGTGCT ATCCGTCGTA ACCGTGCTGG 1260

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TTTTGATGAA GGAAATCGCC CAATCGGCAA CTTCTCTCTT GTAGGGTCTA CTGGGGTTGG	1320
TAAGACGGAG CTTGCTAAGC AATTGGCACT CGATATGTTT GGAACCCAGG ATGCGATTAT	1380
CCGTTTAGAT ATGTCTGAAT ACAGTGACCG CACAGCTGTT TCTAAGCTAA TTGGTACAAC	1440
AGCAGGCTAT GTGGGTATG ATGACAATAG CAATACCTTA ACAGAACGTG TTCGTCGCAA	1500
TCCATACTCT ATCATTTCTCT TGGATGAAAT TGAAAAGGCT GACCCTCAAG TTATTACCCT	1560
TCTCCTCCAA GTTCTAGATG ATGGTCGTTT GACAGATGGT CAAGGAAATA CAGTAAACTT	1620
CAAGAACACT GTCATTATTG CGACCTCAAA TGCTGGATT TGGCTATGAAG CCAACTTGAC	1680
AGAAGATGCG GATAAACCAG AATTGATGGA CCGTTTGAAA CCCTTCTTCC GTCCAGAATT	1740
CCTCAACCGC TTTAATGCAG TCATCGAGTT CTCACACTTG ACTAAGGAAG ACCTTTCTAA	1800
GATTGTAGAT TTGATGTTGG CTGAAGTTAA CCAAACCTTG GCTAAGAAAG ACATTGACTT	1860
GGTAGTCAGT CAAGCGGCTA AAGATTATAT CACAGAAGAA GGTTACGACG AAGTCATGGG	1920
GGTTCGTCCT CTCCTCGCG TGTTGAACA AGAAATTCGT GATAAGGTGA CAGACTTCCA	1980
CTTGGATCAT TTAGATGCTA AACATCTGGA AGCAGATATG GAAGATGGCG TTTTGGTTAT	2040
TCGTGAGAAA GTCTAAGACA GAATTTTGAG GATAAAAAAG AAGGAGCCAG CTGAAAAAAA	2100
CTGGTTCCTT TTTAGGTACG ACAGGCATGT CGTATAGTAG AAGTGTATTA TTCTAGTTTC	2160
AATATACTAT AGTAGCTCAG AAGTCGGTAC TTAAACGTGC TATATCAAAA CCAGTCCTGG	2220
AAAAACGTGG ACTGGTTTCG TGTTTGGATT ATTACCTTGA ACGACATGCG TTAAAAGTTA	2280
GTGAACCGC CGTATGCCGA ATGGTACGTA CGGTGGGTG AGAGGGGCTA GAGATTATCC	2340
CCTACTCGAT TTTAAATCAC ATGACGTTCA AAGGCATCAT CTGAAATCCC TTGTTCCAAG	2400
ATGAGTTTTG CCCATTCTTT AGCAGAGAAG AGGCTGTGGT CCTTGTAGTT TCCGCAAGAT	2460
TCGATGGTTG TCCCTGGGAC ATCTTCCCAA GTAGTAGTTT CAGCGATTTC CTTGAGCGAA	2520
TCCTTGATAA CAGCTGCGAT TTAGCACTG GTGTGACGTC CCCACATAAT CATGTGGAAG	2580
CCTGTGCGGC AACCAAATGG TGAACAGTCA ATCATGCCGT CAATGCGGGT ACGGATGAGT	2640
TTGGCTAAGA GGTGCTCGAT AGTGTGAAG CCGGCAGTAG GGATAGAGTC TTCGTTTGGT	2700
TGCACCAAGC GAATATCATA ATTGGAGATG ATGTCTCCTT TTGGTCTGT TTCTTCCCA	2760
ATCAAGCGAA CATAGGGTGC TTTGACAATG GTGTGGTCAA GTTCAAACT TTCGACAATA	2820
ACTTCTTTTG ACATGGTAAA TCCTTTCAGT TTTCTTCTCT CATTATATCA TAAAGGTTCG	2880
TCCTGAGACA GAGAGAAAAC CTCTCCGAGG CTGGAGAGGT TGAAATCTTT ACTTACGATA	2940
TAAGCGGTCG TATTGGTAGT ATGGGTCAAA GGTACGTTG ATACCCAGTT TACGAAGGAC	3000
ATTCTTGTCT TCATCAGTCA AGATGATGGT TGAGTGGGCT TCGCTTCCTT TGAGGTGGCC	3060



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GAGTTCCTCC	ATAGCGCGGG	CAGCATCAGG	ATTTTCTGTA	GCTGTGATAG	CAAGTGCAAT	3120
CAGGATTTCA	TTTGAATGAA	GGCGTGGATT	GCGGCTACCG	AGATGATCGA	TTTAAAGACC	3180
TTGGATTGGC	TTAACAACCT	CAGGCTCGAT	TAGTTTTACT	TCTTTAGCGA	TGTCAGCTGA	3240
TTTTTTGATG	GCGTTGATCA	AGGCAGCGGC	TGTAGGACCA	AAGAGTTCTG	AGTTCTTACC	3300
AGTGATGATT	TCCCCATTTG	GCAATTCAAA	GGCTAGGGCT	GGTCCACCAG	TTTCTTCTGC	3360
TTTTTGGCGC	GCAACGACAG	CAACCTTACG	GTCTGCAGGT	GTGATACCGA	GGTCGTTTCAT	3420
GAGCAACTCA	ATTTTCTTGA	CGGCAGCTTC	GCCAACTTTT	TCAGCTTTGA	AGTCAAGAAC	3480
TGTTTGATAG	TAACGGCGGA	TGATTTCTTG	TTTAGAAGCT	TCGACAGCGG	CCTCGTCATC	3540
TGTAATAGCG	AAACCAACCA	TGTTGACACC	CATATCTGTC	GGTGAAGCGT	ATGGTGATTT	3600
TCCGAGAATA	CGTTCCAACA	TGCGTTTGAG	CACTGGGAAG	ATTCGATAT	CACGGTTGTA	3660
GTGACAGTG	GTTTCTCCAT	AGGTTTGAAG	ATGGAAGGGG	TCAATCATGT	TGACATCATC	3720
AAGGTCAGCT	GTGGCAGCTT	CATAAGCCAA	GTTAACTGGA	TGATGAAGGG	GAAGATTCCA	3780
AACAGGGAAG	GTTTCAAATT	TAGCGTAGCC	AGATTTGATG	CCATTGATTT	GGTCGTGGTA	3840
CATATTGGAC	ATACACGTTG	CCAATTTTCC	AGAACCAGGT	CCAGGAGCGG	TTACGACAAT	3900
CAAGTTGCGA	CTGGTTTTGA	TGTAGTCGTT	TTTGCCCATG	CCTTCTGGGG	AAATGATGTG	3960
ATCCATATCC	GTCGGATATC	CTTTGATTGG	ATAATGAAGA	TAAGAATCAA	TTCCGTTTTT	4020
CTCAAGTTGA	TTGCGGAAGG	CATCTGCAGC	GGGTTGGCCA	GCGTATTGTG	TAATGACAAC	4080
GGAACCAACA	AAAATCCCTA	ATTCAATTGAA	TTTATCAATC	AAACGAAGAA	CTTCTTGGTC	4140
ATAAGAAATG	CCTAAGTCGC	CACGTGCTTT	GGAATGTTCA	ATGTTGCTAG	CATTAATGGC	4200
AATCACAAAC	TCAACCTGCT	CTTCAATTTC	TTGCAAGAGC	TTGATTTTGT	TGTCAGGTTT	4260
ATAACCAGGA	AGGACACGAG	CAGCGTGGAA	ATCTTCTAAC	ATTTTACCGC	CAAACCTCTAA	4320
GTAGAGCTTG	CCGTCAAATT	GGTTAATGCG	CTCCAAAATA	TGGTCGCGTT	GTAAATTCAA	4380
ATATTGTTCA	GAACATAAAG	CTTGTTTTTT	CATTTTTTTA	CCTCTGGACT	CTATTATAAT	4440
AAAAAATTGG	AAGTTAGGAA	ACTACGGAGC	TAAAAAAGAA	ATTAAAAAGA	TTAAGCAAAC	4500
GCTTGACAAA	AATTTTAAAA	AGTGCTATCA	TAGACTATAG	ATTATGAAAA	TAATGAGGTA	4560
AACAGATGCA	AGAAAAATGG	TGGCACAATG	CCGTAGTCTA	TCAAGTCTAT	CCAAAGAGTT	4620
TTATGGATAG	TAATGGAGAT	GGAGTTGGTG	ATTTGCCAGG	TATTACCAGT	AAGTTGGACT	4680
ATCTAGCTAA	GCTAGGAATC	ACAGCAATTT	GGCTTTCTCC	CGTTTATGAC	AGCCCTATGG	4740
ATGATAATGG	CTATGATATT	GCTGATTATC	AAGCGATTGC	GGCTATTTTT	GGAACCATGG	4800

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AGGACATGGA TCAGCTGATT GCAGAAGCTA AGAAGCGTGA CATTCGTATC ATCATGGACT	4860
TGGTGGTCAA TCATACCTCA GATGAACATG CTGGTTTGT CGAAGCCTGT GAAAATACTG	4920
ACAGCCCTGA GCGAGACTAC TATATCTGGC GCGATGAACC CAATGACCTA GATTCTATCT	4980
TTAGTGGGTC TGCTTGGGAA TACGATGAAA AGTCAGGTCA ATACTATCTC CACTTTTTCA	5040
GCAAGAAACA GCCGGATCTC AACTGGGAAA ATGAAAAACT TCGCCAGAAA ATTTATGAGA	5100
TGATGAACTT CTGGATTGAT AAAGGTATTG GTGGTTTCCG TATGGATGTT ATTGACATGA	5160
TTGGCAAAAT TCCTGACGAG AAGGTAGTCA ATAATGGTCC TATGCTCCAT CCCTATCTCA	5220
AGGAAATGAA TCAGGCGACC TTTGGAGATA AGGATCTCTT GACAGTAGGG GAGACTTGGG	5280
GAGCAACTCC AGAGATTGCC AAGTTCTACT CTGATCCAAA GGGGCAAGAA TTGTCTATGG	5340
TCTTCCAGTT TGAACATATC GGTCTTCAGT ATCAGGAAGG TCAGCCTAAA TGGCACTATC	5400
AAAAAGAGCT GAATATCGCT AAGTTAAAAG AAATCTTCAA CAAATGGCAG ACAGAGTTAG	5460
GAGTTGAGGA CGGCTGGAAT TCCCTCTTCT GGAACAACCA TGACCTCCCT CGTATTGTCT	5520
CAATCTGGGG AAATGACCAA GAATACCGCG AAAAATCTGC CAAAGCCTTT GCAATCTTAC	5580
TTCATCTCAT GAGAGGAACT CCTTATATCT ACCAAGGTGA GGAGATTGGG ATGACCAACT	5640
ATCCGTTTGA AACACTGGAT CAAGTAGAAG ATATTGAATC TCTCAACTAT GCGCGTGAGG	5700
CTCTTGAAAA AGGTGTTCG ATTGAAGAAA TCATGGACAG TATCCGTGTT ATTGGACGTG	5760
ACAATGCCCG TACCCCTATG CAATGGGACG AGAGCAAAAA CGCTGGTTTC TCAACAGGTC	5820
AACCTTGATT GGCGGTTAAT CCAAATTACG AGATGATCAA TGTCCAAGAA GCGCTGGCAA	5880
ATCCAGATTG TATTTTCTAT ACCTATCAGA AACTGGTCCA AATTCGCAAG GAGAATAGCT	5940
GGCTAGTTTC AGCTGACTTT GAATTGCTTG ATACGGCTGA TAAGGTCTTT GCTTATATAC	6000
GTAAGGATGG CGACCGTCGC TTCCTAGTTG TGGCTAACTT GTCCAATGAA GAGCAAGACT	6060
TGACAGTAGA AGGAAAAGTC AAATCTGTCT TGATTGAAAA CACTGCGGCT AAAGAAGTAC	6120
TTGAAAAACA GGTCTTGGCT CCATGGGATG CTTTCTGTGT GGAATTACTA TAAATATTTT	6180
TTGCAGAAAA ATTTAAATTT GAAATCGTAT AAAAACAAGG GAGGACTGTA TAAAAGACAG	6240
AAATCCTTTG TTTTTTATAA CCAAAGTTTA TAAACTTTCA TTCTTGAAAT TCAATTAAC	6300
TTACAAATTC CCACTATTAA GGAGAAAGAA GATGAACATA AAGAAGCGTG TCCTTAGTGC	6360
AGGCCCTGACT TTTGCATCTG CTTTGCTTTT ACCCAAATCA TTCATACCTC TCTCAACTAG	6420
ATGTAACCTA CAAAACCCCT GACCTCATGA GCCACTTTCT TCCTCCTCAT GAGGTCAGTT	6480
TTACTTTCTG CTGTTCCAGT ATCGTTTTTC CTCGCTAGAT TTCTCAGAAA GGGCAGACTC	6540
CTCCCTTGGT GCGTCACACG ATTTTTTCAT CTCGACTGTT CTTTAATGCA TCATTAACGA	6600

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CGCTTTTCTT CTAGGTGGTT CATAAGGAAC AGGAAGATTC AGGTTGACTT TTCTAATCCT	6660
AGAATAAAGT GCTGAAAACA ATTCGGAATA GGCATAGAGA CTAGACAATT TGAGGAGCTG	6720
CTTGCGTCCT GTTCGAACAC ATTTTCCGG	6749

(2) INFORMATION FOR SEQ ID NO: 85:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 1842 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 85:

TCTACCCATG GACTTTGAGG CATTCAATTGT TCCATCTTCT AGTGGCGAAT CTTTGTATAC	60
AAACGATTCA ATTCACCTGG ATAGTGAAAC TCTCCCGCAA ACATTTTCTTCT GGTTAACTCA	120
ATCCAGCTGA TATTTCTTTC AGCCAAAATA ATGGACAAGT TCTCCCAAAA TCGTTCAGCC	180
ATATTGCTTC TCCTTTAGTT AGATAAATAA TGTGTTTTCG CCATGTAAAT CAATTGTTTC	240
GTATCTCTTG GCAATAGAGC TCTAGCCTCT TCCAAATTCA GACTTGGATA AACTCGCTTA	300
TTTGAAACCG CAAGAGGAAG TCTGATGGTT AGTTCAGGAT TTTTAAAAAT TATCTCAACG	360
AAATCCGTTA ATCTTAGATT GTCACGGTTC TTAAATCGTA ATAAATTGGG AGATAAAAAC	420
TCAAAACAAT CTGAAGAATA GCTCATCATC TCAATTAATT TGCCTTTGT CATTTCAGAA	480
ACTGAATGAC AAGATACCTC TATGCCATAG TTTTGGAAGA AATCTAAAAG AAGTTGATTT	540
CTTTGTCTAT TTTTACTTAG ATAGAGATCA ATCATGGGAG ACCTCCCAA GATTCGGTTC	600
CATTTGATAT TCTGACACGA TTAAGGAATC TAATAAATTA AGGAATCTAA TAAATTTGCG	660
AAGTTAATCG GTTTCTTGTC TTCATCATAA GCTTTTACAG TTAAGTTGGT TGTAAATATT	720
CCCTCTTTTC CCTCGGCTCG ATAGCCTTGT CCATATAAAA CAAAAACGAG ATTTTGATGA	780
TCATCTACAA AGGCATCAAC CCCATTCTTT ATGTCTTGAC TTTCAAGGAA TTCCATAACG	840
TTTTGAAGAT AGGATTTCGTA AAATAGTGGG TAGTTATGTT TTTTATGGTA ATCATCTAAA	900
AATGTCACTT CAAACTCACA TGGAGAGTAA TTTTGACTTT GAACAGCCTA AAAGTGCCAT	960
CAAATTTGAA TTGGAATAAA TCAAATAAAT AGCCCCATCC TCATCAATCC AACCTTTGCT	1020
CAAAGACAAC TCCAACCGAT CTTTAAAAAC TGAGTAAACC ACCTTAACCT CCAGTTTCAT	1080
ATTCTTATAC CGTTCACTCT CAAATAAAAG TTTGGGGAGC TTATAATAAC GCTCTGATGT	1140
CTGATATTGA TTAGCGGTAA TACGCTTCAT TATTGTCCCT CCAAGACTAA AATTCCAACA	1200

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TTTCCAAAT	CATCAAATCG	GATTAAACCT	ACTTGTTCCA	TTTCATCAAC	TAAC	TGAGTT	1260
GCTTTTACCC	AAATCATTCA	TACCTCTCTC	AAC	TAGATGT	AACTTACAAA	ACCCCTGACC	1320
TCATGAGCCA	CTTCTTCCT	CCTCATGAGG	TCAGTTTAC	TTTCTGCTGT	TCCAGTATCG		1380
TTTTTCCTCG	CTAGATTTC	TCAAAAGGGC	AGACTCCTCC	CTTGGTGCGT	CACACGATTT		1440
TTTCATCTCG	ACTGTTCTTT	AATGCATCAT	TAACGACGCT	TTTCTTCTAG	GTGGTTCATA		1500
AGGAACAGGA	AGATTCAGGT	TGACTTTTCT	AATCCTAGAA	TAAAGTGCTG	AAAACAATTC		1560
GGAATAGGCA	TAGAGACTAG	ACAATTTGAG	GAGCTGCTTG	CGTCCTGTTT	GAACACATTT		1620
TCCCACCACG	TGAAGAAAAA	GATGGCGGAA	GCGTTTGATT	GTTAAAGTTT	GGAAGTCACC		1680
TCCAGCTAGA	TGTTTGAGAA	AAAGATAGAG	ATTGTAGGCG	ATACAGCTCA	TCATCATACG		1740
AACTTCGTTT	TTGATTAAAG	TTGAACTATC	CGTTTATCG	CCAAAAATC	CCTCCTTCAT		1800
CTCCTTGATG	AAATCTCTCG	CTTGACCACG	TCCACGATAA	AG			1842

(2) INFORMATION FOR SEQ ID NO: 86:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 19390 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 86:

TCATCTTTAT	CTCCTCGAAA	TTTTCTAATA	TAGCCATTAT	AACAGAATTT	TGTGAAAATT	60
CCTATTATAG	TAAATCACTA	TTTCAGTATA	AAAAGAAAAA	ACGAATCAGA	CGATTGCTC	120
TTCTTAAAT	CTGAAATAG	CTTTCCAGAA	AGGATTAGCC	GATTTTTTGC	AGATTGAGCA	180
CTGCATCGTG	ACTCATCAAG	ACTTGACCAT	ACTCTTGTA	GA	CTGATATCAC	240
TATCGTCTGC	AAACTCGCGC	ATACGGGCCA	ACAGCCAAGC	TGGATATGGG	CTTGGATGAT	300
TTTCAATATC	CACTAAAATG	GTCAAATAAT	AGCGCTCGTT	CATTTTGTAG	AGTTCAGAAG	360
TTTCCATTTC	AAAAGTCACT	GTCTTGCGAA	AAGCTACCAA	GTCAGCCAAC	TTAGCAAAAG	420
AAAGGATGTA	GTAGATGTAA	GGTTCTTTCT	TACTCTCAGC	TTCTTGTTCA	GCCTGCTCTT	480
GCTCTTCTTC	CTTGACTTCA	ACTTGCTCAA	GAGATTGAAT	GGCTTCGATA	TCATCCTTGG	540
TTTTGTCTGC	GATGCTTTTT	TCCAGGGTTT	TGATAAATTC	ATCTGGAGAC	ATTTGAGCCA	600
ATTCTTCCAT	ATCTGGCAAA	TCCGATAAGT	CTTCAAAAATC	TAGATTTTGG	TCAATCTTTG	660
ACTTGGTCAC	AAAGACATCT	ACCTTATCAG	GTTTTGGAGT	CACACGGAAG	CTCAACATGC	720
CTGTATCCAG	AAAGCTATCA	GGCATCTCTA	GCTCATCCAA	GATAGCATAA	AAGAACTCTT	780

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CTGTTTTTTC	TTGAGGAACG	AGAAAGTCAG	CAATCTCCAT	TCCACGATCC	ATCAAATCCT	840
CTAAAGATAT	CGTGATTTTT	AAAGTTGTAT	CACTAATTTG	TTTCATTTTC	ATTGCTAGTA	900
ACCTCATACT	TTCAGTTCTA	TCTATTATAC	TAGATTTTTA	CGATTTTATC	AAAAGAAGGC	960
TCCTCTATAC	GGATAGATTT	TCCCTAGGGT	CTTCTATAG	GAGACTCCAA	AAGAAAATTT	1020
CTGCAGACAG	ATAGAAAAAG	CCTTCAAAAT	CGGCTAAGAG	CCGACTTTGA	AGACCTTATA	1080
CATCAGAATA	CTTATAATTT	AAAGGTGCT	ACACCGAGGA	TAGAACGATT	TAAGTTTCTG	1140
AGAAATTTGAA	GACTTTGCTC	AAATTTCTTA	TAACGAGTCA	CTCCGTACTC	TTCAACAAGA	1200
AGGACTGTAT	CTCTTTCCAA	AAGAGATGAT	ACATCCTGTA	AATCTACAAA	ATGCATTCCT	1260
TTTAAAGCTT	CTTGACTCTG	TTTCAATTTA	TCTAAGATAG	CTTTATTTGA	GCTAACGATG	1320
GTCAATTCCT	GTCCAGTATT	TTTGTATGAC	AAAACATCTG	CTAGGTTAGC	AATTGTTGTA	1380
ATCTCTGTTA	CAAAATCAAT	TTGATACTGA	GAAAAATCAC	CTACTCTATT	GATTGTTGGA	1440
TTAAAGAGAT	AAACTAACAC	ATTTCCCATC	ACAACCAAAA	TCACACAAAC	CACTCCAATA	1500
ACAATAAAC	GAAGAATCAG	ATTTTTCACA	TTTAAGCCAA	GCGCTGTTTC	ACCATTTGCG	1560
TTCAATTCTT	TAGAGTTGAT	GGTTTCCAGT	TTTTCAATTT	TCACATTTGC	ATAGGCATGT	1620
TTAAATTTCT	CAATCAACCC	ATCAATTTTT	TTCTCTAACA	AGTTATTGGC	ATCTTTACTT	1680
GATGTCAAAA	TTTTCACACC	AACCCTGCA	TCGTCAATCA	TATAGTAGAC	GGTCAATTTT	1740
TTCCACCAAT	AGTCATTCGT	TGAATTTTTC	AAGGTTGTTT	CTGTCGTGTC	TAATTCACTG	1800
GCAATTTTTT	TCAACTCACT	GGTTCTACA	TCATTGAAAA	GATAAGCTCC	ATTCAAATTA	1860
CCATCAATCA	ATTTCCCAT	AAAATCACTA	TAACCACCAA	TTTGATGATT	CAAAATCGTT	1920
TTGTCCGACT	CTTTTGGAGG	AGTGATTTTA	TAGATAAGAT	AAGTTGAATA	ACTTGTGTA	1980
TCTTTGACAG	TGTTTTTAT	CCTAACTGCT	TTAATTGTAA	ATGGTACAGC	AATGAGAGCA	2040
AATAAAGCGA	TGAGAGCTAA	AATATTTGCT	TTTCGCTTTT	TATAAAGATT	TGCAAACAAA	2100
TCAGCTACTG	AATAATGTT	AAACATGATT	TTTTTCTCCT	TTGTTTAGTA	GATACTAGTT	2160
TTCTTTTGTA	AGCATTTTTG	CTACAAATAT	AATCACAAGA	ACAATTCCCC	AGAATTGCAT	2220
TGTAAATAAA	TTGAAGAAAC	TTTCTGAAAA	GCTGCTTCTT	GGCATAAAGA	ATAGATTATT	2280
CAAGATGAGT	AGGGATAAAG	CAAATAGGAT	TGTCCTTGAG	CGATAGGCTA	CTTGACGAT	2340
GGCTATAAAT	AATACGCCGA	GTAAGAACT	AAGCAGAAAG	ACTCCAATCA	TACCATAGTC	2400
GGTATACAAC	TCCATGATAT	AACTACTTCC	GATACCATGC	CCTTCAAGT	ATTCCTTGTT	2460
CAAGACAAGA	TAGGATAGAT	TGTGGGCATA	ACTATTACTA	TCAATAGCTA	GTTCCACACT	2520

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ATTGGTTGTA	TGTTCAAAGG	CTTTTCCTCC	GAAAATGGCT	CCCAAACCTCC	CCCTTGCAAA	2580
ATAATCAAGA	ACAGGACCAA	AAGTAAAATT	ACGGAAATCT	CGGTAAGGGA	GGCTACTGTT	2640
AAATAGAAAA	CCTCGAGCCA	GAACACCAAA	ACTAGTCCCT	TGTTTATAGA	TAAAGTCAAG	2700
TAAGATATCC	CAGAAACCTG	TATGGGAAAC	TTGGACATTA	TCCCGTACAT	AATTGAGTAC	2760
TCCCATCGCT	AACATGAGAA	TAGGAGAACC	TACAAAAATC	GCTAACTTTT	CTTTAAACCC	2820
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ACTTAAAATA	AAGGGATTTC	GTGTCCCAAT	TGCCAAATGA	ATAGTATTAG	CTGCAATAAA	2940
GGAGACAAGC	ACTGCTGTGG	CCTGCAATTT	CTTTGGCTTG	GTTGCCAGAT	ACATACACAT	3000
TGCATAGACC	GTAAAGGTAG	ACAAAATGTA	GGTAAATAA	GGCAGTTTAC	TTTCAAAATT	3060
TGCATAGTAG	GCATAGTAGG	AAGTCTGCAA	ACGATACAAG	AGCCGTTCAA	ATAACCGAAT	3120
GAAATAGAAA	GGATAAGTTA	GAAGAAAAAC	TCCTAGTGAT	ACAAAGCGTA	ACCGCTTGAT	3180
ATAAACCTCT	TTTAGAGAAT	TTCTATATTT	TGCTACTTTT	ATTTTCTTCC	TAGCTATGAA	3240
GTAACGAGCC	AGAATGCCTC	CTGTGGTCAA	GCCCAGAATC	GAAATCATGA	CAACTATAAA	3300
GGCAAAACGA	TAGGCTATTG	GATGATAGGT	ATCCAAAGCA	CCATCCCTAA	AATAATCAAT	3360
GGTCGGTCTT	GATACCAGAA	ATACAAAAAT	GGTTAAATAG	AAAATAAAAT	GGATTAAGTA	3420
ATACTTGATA	TCATTCCAAC	AAGCAATTAA	GCTACTAACC	AACAAGAACA	ATAAAGTAGA	3480
AAGTAAGCTA	ACATTATTAT	TATTAAACAG	ATACACAATT	CCACTTACTA	GCGTCAAGGC	3540
ATAACTGACT	ATGGTCAAAC	TAAATAATAA	TCGTTTCCCA	TCAATCACTT	GGTCACCCCC	3600
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TGGGCTTTCA	TCATTAGCAT	AGACATTCAT	GACACCACAG	CTCGAAACAT	CCGCATCTTC	4260
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CAAGCGACCA CTTTCATCTG TTGCACCATC ATCAACAAGA ATAATTTCCA GATTTTGATA	4500
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CACAATCACA CTAATTAATG CAGTTTCCAT GCTACTCCTC TAATAGTTTT TCTACTTGTT	4620
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TCCTTGAAAT	CCTCAATTCT	ATCCAGAATG	ATCTCGCTAT	TGGACAAGAG	AATGGAGGTC	11520
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CGCCTTGCCA	TCTCATGCTC	TTGAGCATAG	ACCGCAGTCT	GCTCCATGAG	ACTAGAAGCC	11640
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TGCTCGTCTG TGCTGAGCCC ATTTGCCTGA AAATGCGCTT GAGACAATTC TCGTGAACGT	16440
TTGGCTAGAT CAACAGAAGT TGTATGGCTA GCTCCTCCCA TGGCCGACG TACTGAAAAA	16500
GCCGCTGTGT AGGAAAACAT ATTGAGTAAG GATTTACCCA TAGCCAAGCC GTCAACTAAA	16560
CTACCGCGAA CCTCATGCTG GTCTAGGAAA ATTCCTGTCA TCAAGCCATC ATTCATAAAG	16620
ACTTGATACA GGACACCATT TTCTAAAACA TTGAAAAAGT CAGGTGCTTC TTGACCATAA	16680

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ACATGGGCAG ATTCATAGTC CAAACCCTTA AAGCGGATTT TCTCATAAGC TCCTAAAACC	16740
TCAGGGAAAA CCTGTCTAAA GGCTTCTGAT ATAGTCTGAC GAATCTGATA AACATAAGAG	16800
TTATACCAAG AAAAGACGGC GTAGTCGCCA TAAAGGTCCA CTGTCAGACC CCCAAAGCCA	16860
TCTCCCTCTT GATTAAAGAG ACGAAAGGCA GTTGTCAAAT CATCTTGATA GTAGGCGTTT	16920
CTCTTTTCTT TGGCTTTTCT AAACAACGTT TCAAAGAAAG CTTGATTGAA GGCCACCTTG	16980
TCTTTGCTGA TAAACCAGCC CAAGCCCTTG TTTTGCTGAG AAAGGTAGGC AGTCCCAAGA	17040
AAGTTTCCTT CCTGACCCTG CACCTCTACT TCCTGATCCT TAAGATTGAC ATTCTCAAGA	17100
TCACTGGCTT CTAGTAAAAC TAGCCCCTTA GCAAGCTTCT TTTCAACCCT TTTGCTGACT	17160
CTTATTCCTAT TCATAACTAC CATTATATCA AACTTTTAGA CAATTCTCAA AAAAGAACT	17220
ACCCTTGCTT TTTTACTCTT CTTTAAAAA ATGGTATACT AGACTTCCTG CAAAACCTAGG	17280
AAGTAAATGT GTAAGAATCA CAGTAAAAA TGCTCTCCG TCTTGAGGA GCATTTCTTT	17340
TTATCAACGA AAATCAAATA GCAAACTATG AAAGTAGCCT CAGGTAACT GTGAGATTAT	17400
AGGTAGAGAG GTTGTATCAG CAATATGTGT CTGTCAAATT TAGTGACAAA GGTAGTAGAA	17460
GAAAGATAAA GAAATAAATC AGCTTCAGTA GGTATCTGGA AAATTTGATT TTATAGAGAA	17520
GCCTTTTGTT ACAAACCTCA TATACTATCA ATAAATAATA TTATAGAAGC AACAATAATT	17580
ATAATTCAC CTATCTGCAT CATTCTATTT CGAACTCTAA ATATATGTTC TATCAAAAAT	17640
ACTTGGAACA CACACATTAT AGGAATTAAC GTTTTTGAAA TTGAAAAATA TCCAAATAAA	17700
TAAACTATAA ACAACAAAA TAGAACTATG TTATATTTCT TATTCAAAAC ATTCTCCCT	17760
ATATATTTTT GATTACCAAT CTTAATCATT TACAACATA TTCTAACAAA CTATAAAGC	17820
GTTTGTGCGA TTGAATTTAT CAAGCAAGCG ACCAACCAGT TCATCTTTTT TCTATTTCTG	17880
CCAATATGCG TGACAGGTAA TAATGATAGC CAAAAATAGC AAGAGCAAGC AAGACGATAA	17940
GAGCTCCTAC TCCCAAGCTG ATGGCAAGGA TAGGGGAGAG AGACTGAACC AAGAATATGC	18000
TCCCAATTAC AAGGGCCATC AGGATTGCAC TATAAATAAA CAATAAACT ATGGCGAC	18060
TGCCATTGA ACGATTACAC AGGTCCGTAA TGCTACTCCA ATTGGTTGAC AGATTTTTAA	18120
CGTCCTTAAA GTAATGGTGG CAAGAAAGGA TGACACTGGC AATGATCCAG ACTACAAGAA	18180
GGTAAATCAT CGAAATGATG GGCAAGCCTA GATATAGAGA AAGACCAAGC AAAGTCAGAA	18240
CTGGTAAAAA GGACTGGACA GCATATATAA TCCAAAATTT CACTTTCACA TAACGAGCAA	18300
AGTCAAAGG TAAACTCTTA AGAAAATCAA CATTTCCTT CTCCAAGGAC AAGGCAATTG	18360
AATGCAGGCT GGTGATATTG TTATTGACAA CTGCTATAAA GAGAGCTATA AAAACAAGG	18420
GTAACCAGTA TGGAGGATGA ATGTCTGGAA CTATCTGAGA ATCTCGGATT TTGGAAATCA	18480

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GACCGATCAT CATGAGATAA GGAAGGAAAG CACTTGTAAG AAGCACTGTA ATCACGCCAG 18540  
 TCCCCTGTCC CAAGAGGGTG AGGTGGTAGC GTAAAACCAT GCGAAAAAAT CCCTTTTGTAG 18600  
 TGGTTGAAAT TCTCTCCTTG CTGCGACGTT CTTTTTTGAC CTTCTCCTCA CTATTAAGCA 18660  
 GGATCACGTC ATAAAAACGA GGAAGGACCT TCTTTTGGT CAGATAAAGC AGGAAGAGAG 18720  
 TTAGTCCTAT CCAAGCGAGC AGACCCACTA AGGCTTCTGT CGAAAAAGGC TCCACTGCTA 18780  
 TTTTGTAAAA GATATGAAGA GGATAAAGGA GAAATGGAAT GTCTCTAACT TTGTCAACAA 18840  
 TACTTCCAAA AGTCGACTGA AGAAAGAAGA TAAATATTAA AGGTATGAGA ACTCCTATCC 18900  
 CAATCATCAC ATTTCGAAAA ATAGACTGAT ACTTTCTGAA GACCCTAGTT TGAGCCAAGA 18960  
 AATGCACTGC CACTACCATC ACTAGAGCCA CAGAGACAAA TAATAAGGTC AAGGACAGTA 19020  
 GCATCAAAGG CAAACCCAGC CATAGAGAAG GAGCTAGCCT AATGTAGAGG ACCAGAAAAT 19080  
 AAGCTAGGAT TGGTACAATT CCAGTTAGAG CTGGCAAAAG GACAGACAGT CCTTTAGCAA 19140  
 TTATAATCTC TGATTCTTTA AAGGCATAGG GCCTATACGA TACCAAATCC TTACTCTCAT 19200  
 AAAAGACATT GTAAAAGGCC GTTAAAGAAG TTGAAAAGGC AATCACTAGT AAAATAGCAA 19260  
 TCATCGAGCT AAAATAAATA GGTATTTTCT CAAAAGGAAA ATGAATGGCT ATATTACTAA 19320  
 AACAGATGAT CATCAAGAGA CTGGAAAAAA TGTAAGAAGT TAAGACTCTA GCGGAAACAT 19380  
 TTACTTTTTT 19390

## (2) INFORMATION FOR SEQ ID NO: 87:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 18436 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 87:

CCGAGCGTCG TTACAGACTT TATCAAGATT GGACGCAAGA AGAAATTCAA CATATAAAGG 60  
 AAAATATGGC ACAATCTCCA TGGCATACTC ATTACCATGT TGAGCCAAAA ACAGGACTTC 120  
 TCAACGACCC AAATGGCTTT TCTTACTTTG ATGGCAAGTG GATCCTCTTT TACCAGAATT 180  
 TTCTTTTGG TGCAGCCAC GGTTTAAAAT CTGGGCACA GCTAGAAAGT GATGATTTGA 240  
 TTCACTTTAA AGAACTGGA ATCAAAGTTT TACCAGATAC TCCATTAGAT AGCCACGGTG 300  
 CCTACTCTGG TTCTGCCATG CAATTTGGCG ATAACCTATT CCTATTTTAT ACAGGAAATG 360  
 TTCGCGATAA AACTGGATC CGTCACCCAT ACCAGATCGG TGCTTTGATG GACAAGGAGG 420

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GTAAGATTAC	AAAGATTGAC	AAGATCTTGA	TTGACCAGCC	AGCAGACTCT	ACTGACCACT	480
TCCGCGATCC	ACAAATTTT	AACTTTCAGG	GTCAATATTA	TGCCATTGTC	GGCGGACAAG	540
ACTTGAGAGAA	AAAAGGTTTC	GTTCGTCTCT	ACAAGGCTGT	CAATAACGAC	TACACAAACT	600
GGCAAGCAGT	TGGCGACCTT	GACTTTGCTA	ACGACCGTAC	TGCCTACATG	ATGGAATGTC	660
CTAATTTGGT	CTTTGTAGAG	GAACAACCTG	TCCTTCTCTA	CTGTCCACAA	GGATTGGATA	720
AGAAAGTTCT	AGACTACGAT	AATATCTTTC	CAAATATGTA	TAAGATCGGG	GCTTCCTTTG	780
ACCTAAAAA	TGCCAAAATG	GTAGATGTGT	CTCAACTTCA	AAACATGGAT	TACGGTTTCG	840
AAGCCTATGC	AACTCAAGCC	TTCAACGCTC	CTGATGGGCG	TGCTCTAGCA	GTTAGCTGGC	900
TTGGTTTGCC	AGATGTTTCT	TACCCATCTG	ACCGTTTGA	CCACCAAGGA	ACCTTCTCTT	960
TGGTCAAGGA	ACTCACTATC	AAAGACGACA	AGCTCTACCA	GTATCCAGTC	GCTGCTATTA	1020
AGGACCTTCG	TGCTTCTGAA	GAAGCCTTCT	CAAACCGTTC	CCAAACCAAG	AACACTTACG	1080
AACTTGAACT	CAACTTGGA	GCTAATAGCC	AGAGCGAGAT	TGTCTTACTT	GCTGATAAAG	1140
AAGGTAAGGG	ACTTCAATC	AACTTTGACC	TTGTAAACGG	TCAAGTAACA	GTGGATCGTA	1200
GCCAGGCTGG	AGAACAGTAT	GCCCAAGAAT	TTGGGACAAC	TCGTCTTGC	CCTATCGAGA	1260
ATCAGGCTAC	TACTGCTACA	ATCTTCATCG	ATAACTCTGT	CTTTGAAATT	TTCATCAATA	1320
AAGGAGAAAA	AGTATTTTCT	GGTCGTGTCT	TCCCACATGC	GGACCAAAAT	GGTATCCTGA	1380
TTAAATCTGG	AAACCAACT	GGAATTACT	ATGAATTAGA	TTATGGTCGC	AAAACTAACT	1440
GATGTCGCCA	AACTGTCAGG	CGTCAGTCCT	ACTACCGTTT	CTCGGGTTAT	CAATAAAAAA	1500
GGGTATCTAT	CTGAGAAAAC	CATCCAAAAA	GTCAATGAAG	CCATGCGAGA	ATTGGGCTAT	1560
AAACCCAACA	ACCTGGCTCG	TAGTCTGCAA	GGAAAATCAG	CTAAGTTAAT	CGGCTTGATT	1620
TTCCCCAATA	TTTCCAATGT	TTTCTATGCA	GAATTGATTG	ATAAATTGGA	ACACCAACTC	1680
TTCAAAAATG	GTTACAAGAC	CATCATCTGC	AACAGTGAAC	ATGATTCTGA	GAAGGAACGC	1740
GAATACATCG	AAATGTTGGA	AGCCAATCAG	GTGGACGGCA	TCATTCTTGG	TAGTCACAAC	1800
CTAGGAATCG	AAGACTACAA	TCGTGTGACA	GCGCCGATTA	TTTCCTTTGA	CCGAAACCTA	1860
TCGCCAGACA	TCCCTGTCGT	CTCCTCTGAC	AACTATGCTG	GTGGGGTTCT	TGCTGCCCAA	1920
ACCTTGGTCA	AGACAGGTGC	CCAGTCTATC	ATCATGATTA	CAGGGAATGA	CAATTCTAAT	1980
TCGCCAACCG	GACTGCGCCA	CGCTGGTTTT	GCATCCGTAC	TCCCAAAAGC	TCCTATTATC	2040
AATGTTTCCA	GTGACTTTTC	TCCCGTCAGA	AAAGAAATGG	AAATCAAGAA	TATCTTGACC	2100
CGGGAAAAAC	CAGATGCCAT	TTTTGCTTCG	GATGATTTGA	CAGCTATTCT	GGTCATTAAA	2160
ATCGCTCAAG	AATTGGGCAT	TTCTGTCCCA	AAAGAGCTCA	AGGTCATCGG	CTATGATGGG	2220



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ACCTACTTTA	TCGAAAATTA	CTACCCTCAA	TTGGCTACTA	TCAAGCAACC	TTTGGAAGAG	2280
ATTGCTTGTC	TCACTATTGA	TCTTCTCTTG	CAAAAGATTG	AAGGCAAGGA	AGTCGCCACA	2340
ACTGGTTACT	TCTTACCAGT	TACGCTATTA	CCAGGAAAAA	GTATTTAAAC	ACAAGAAAAC	2400
TCAGACCGAT	TCGTCTGAGT	TTTTATGATC	TTAAATTTTC	GAGATAGCGC	TGGGCTGTCT	2460
CTAGGTTAAA	GGTTTTATCT	GAGATGAGGC	GCTCTACTAG	GGGAGCAACT	TCAGATTAC	2520
TAGCCCCAGC	TAGGAGAGCT	AGGGATTTGG	CCTGTAGTTT	CATGTGGCCT	TGCTGGATGC	2580
CCGTACTTAC	CAAGGCTTTG	AGGGCTGCAA	AATTTTGAGC	AAGACCGATG	GACACGATAA	2640
TCTGGGCTAA	TTCTCTGGCA	GAAGGATTTT	CTAGTAGATC	ATGACTGAGA	ACTACACGTG	2700
GGTTGAGGCC	GATAGAGCCA	CCCTTAGTCG	CTACAGGCAT	GGGCAGGGTC	ATCTCACCGA	2760
CCAATTCTTC	TCTTTCAAGG	TCCAGCGTCC	AGCAGCTAAG	ACCTTGATAG	CGTCCATCTC	2820
GACTGGCAAA	GGCATGGGCC	CCAGCTTCGA	TGGCAGGCCA	GTCATTACCA	GTGGCAATCA	2880
AAATCGCATC	AATACCATTA	AAAATTCCTT	TATTATGAGT	AGCAGCTCGG	TAAGGATCAG	2940
CCTGCGCAAA	CTGACTAGCC	AACGCAATTT	TCTCCGCAAT	CTCTCGTCCT	TGATCCTTTT	3000
GGCGGCTCAA	GTAGCGAAAG	GCGATGCGAC	AGCTTGCAGT	CACCAGAGAA	TCGGTCGCGT	3060
AGTTGGACAG	GATTCCCATG	AGACTCTGTC	CCTGACTGAG	TTCTTCTAAG	ACTGGTTTCA	3120
AGGCTTCCAG	CATGGTGTG	AGCATATTGG	CACCCATGGC	TTCTTGGGTA	TCGACATGAA	3180
TATAAACAAAC	GAGAAAGTCT	GGTTCGCCTT	TTATCTGCTC	GACATGCAGA	TCACGCGCCC	3240
CACCTCCACG	TTTAACGATA	GAAGGATAGG	CTTGATTGGC	AAGCTCCAAG	AGCTCCGCTT	3300
TCTTGCTGGC	AATCTTCTCT	TGCGCTAGTT	TAGGATTAGC	AACTTGATAA	AGGGCTACCT	3360
GCCAATCAT	CTGTCGCTGA	TGGACTTGTG	CAGTAAAACC	ACCTGCACGC	TTGATGATTT	3420
TGCTGGCATA	GCTGGCCGCC	GCAACCACAG	AGGGTTCTTC	TGTCACATAG	GGAACGGTGT	3480
ATTCCTGACC	GTTGACAAGT	ACCTCCGGAA	CCAGTGAATA	AGGCAGAGAA	AAAGTTCCCA	3540
CTACATTCTC	ACTCAGCTGG	TCTGCCACAG	TCACGCTCAT	CTGTTCATCC	TTCTCCAGAC	3600
TAGCTTGTCT	CTCAGGACTA	AGGAGCGCCT	GAGCTTTTAA	CAGCTCGAGG	CGCTCTTGGT	3660
ATGATTTTTT	AGAAAATCCA	TTCCAACCTA	TCTTCATTAT	TTTTCAACCT	TGCTATAACG	3720
GCGTTGGTGG	TCGAGAATTT	CAACCAAGGC	AAAATCTTGA	TTTTCATAGC	CAGCAAACCTG	3780
GGCAGAGTTA	GTTTCATCCA	AGTTTACTTC	CTCAAAAAAG	ACCTTTTCAT	AGTCTGCAAC	3840
GGATAGGGCA	GTTGTTGGT	TGAGCTTGT	CAAACGGTCT	TTATCCAAAT	AAGCTTCATA	3900
TCCTTCAACC	AATTCACCAC	TGAAGAACTC	AGCCACAGCT	CCACTTCCGT	AACTATAAAG	3960

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GGCGATTTTA	TCCCCAGCTT	TCAAGCTATC	TGTATTTTCC	AAGAGAGACA	AAAGTCCAAG	4020
GAAAAGTGAA	CCTGTGTAGA	TATTCCCCAC	CTTTTGACTG	TAGAGAATAG	ACTGGTCAAA	4080
ATGCTTTTGT	AAGAGGTCTT	TTTTCTCTTG	AGGCAGGCTC	TTATCCATGA	TTTTTTTCAA	4140
GCCTTTTAGC	GCTAATTTAG	GATAAGGCAA	GTGGAACAA	ACAGCCGCAA	AATCATCCAA	4200
AGTAAGCTGG	TAGCGTTTTT	GATATTCAAG	CCAAGTCGTT	TTCAAACAT	CCAAGTATTG	4260
TTGGGTAGAA	TAGACACCAT	TTACATAAGG	AGTTGTCGAG	TAATTTGGTC	GCCAGAAATC	4320
CATGATGTCA	CGGGTCTGAG	CTACATTGTC	ATTATTAAAG	GCCATCATGC	GTGGATTTTG	4380
TGTAATCAAC	ATAGCTACAC	TTCCAGCACC	TTGAGTTGGT	TCTCCTGGAG	TTTCAATACC	4440
GTATTTGGCA	ATATCACTGG	CAATGACCAA	GACCTTGGAC	TCCGGAGAAT	TTTCCACATG	4500
CAATTTGGCA	TAATGGAGGG	CAGCAGTCGC	TCCGTAGCAG	GCTTCTTTAA	TCTCGAAACT	4560
ACGAGCAAAG	GGCTGGATGC	CCAGCAAGCC	ATGCACAAAG	ACGGCCGAG	CCTTACTCTG	4620
GTCAATTCCT	GACTCGGTCG	CCACAATGAC	CATGTCAACT	TCTTGTCTTT	CTTGCTCAGT	4680
TAAATAGAG	TCAC TAGCAC	TGGCCGCCAA	GGTCACGATA	TCCTCAGTTA	GGGGCGCAAT	4740
ACTCAATTCC	TTGAGTAAGA	GTCCTTTACT	TAATTTTCA	GGGTCAATTC	CCCTCGCTTC	4800
TGCTAAGTCT	TGTAATTTCA	AGACATATTG	ACTGGTCGCA	AAACCAATCT	TATCAATACC	4860
GATTGTCATA	TTTACCTCTG	TTTTATCATT	CATGTAAAAA	ATCGTTCTAT	ACTATTTTAT	4920
CACAAATGGC	AGTAAAAGAG	AGAAAAAGA	CTTGATTCAC	CAAATCAAGC	CTCTTATTGG	4980
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CTCCATTCAC	AGTTATCAGC	TCCTGGAGGA	TCAAATTTCC	TGAGTAAGTC	CTTCCCATCT	5100
CATCTACAAA	TTTTTGATAA	AACTGACTGG	TCGGAATTTT	TCTGACATCC	TTATCAAATG	5160
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GAAACTCTGA	GCCCCGAACTA	GAAACCATGA	CTGGGATAAA	CAACAAGGTC	AGTAGATTTA	5280
CAGACAATAA	GGAAAGTAGT	AGACTTCCTG	CAAACTAGA	ATCCTAGTTC	ATGATTGATA	5340
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GAAAACATTT	TAAACGTTTT	TACTTTGGCA	AAGATGTTCT	CAACCTTGCT	TCTCTCCTTA	5460
GATAGCGCAT	GGTTACAGGC	TTTATCTTCA	GCTGTTAGCG	GCTTGAGTTT	GCTGGATTTA	5520
CGTGGAGTTT	GTGCTTGAGG	ATATATCTTC	ATGAGCCCTT	GATAATCACT	GTCAGCCAAG	5580
ATTTTACCAG	CTTGTCGGAT	ATTTCTGCAA	CTCATTTTGA	ACAACCTCAT	ATCATGACTA	5640
TAGTTCACAG	CGATATCCAA	AGAAACAATT	CTCCCTTGAC	TTGTGACAAT	CGCTTGAGCC	5700
TTCATAGCGT	GAAATTTCTT	TTTACCAGAA	TCATTCGCTA	ATTGTTTTTT	AGGGCGATTG	5760

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ATTTTACTTT CCGTCACATC AATCATTATC GTGTCCTCAA AGCTGAGAGG AGTTCTTGAA	5820
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CTTTTCGTGGA TACCAAAATC AGCCGCAATT TCTTCATAAG TGCGGTATTC TCGCACATAT	5940
AGAAAGCGTT ATCAATTTAT TTATCTCATT TTTCAGAAAA TTCTTTTATT TCTGTAAAGT	6000
CTACGATACT CGATGTGTTT TTATATAATG ATAGAGTCTG AGAATCACTG TTCCGCTAGC	6060
CATTCCAATA GAGATTACCA AAGCCAACAT GACAACCAAG GTCGCACTTG CCAGTGCTTT	6120
ATTATAGTCC CCTGTCACAA AAAAGGCAGT TGTTCGGTAG GAGAGATAAC CTGGAACCAG	6180
CGGTGCCAAA ATGGCCAAGA TAAAGACCAC AGCAGGTGTC TTATAAAGAA TACTTAAAT	6240
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TTCTTGAGC AAGAGATAGA TTAGCCAGAC AGTCATGCCC AAAATCCCTC CAGGTAAGAG	6360
CATAGACCGT TGCACATTGA GTACGATTAA AAAAGTGATA ATGGCAAGAA AACTTGCTAC	6420
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GGATAAATTT TTCCACATAG AGGGAAAAGG CAAAACCAAA TAAGGTCGCC ACTCTGCCC	6780
CAAGTGCCTC GTAGATATTT CCGCTAAACA TAACTGAAAA GAAAGGAGCA CTAAAGGTCG	6840
CAGCCAGAGT TACCTGCAAC TTAGTATAGG GAAGGGGTTT GGCTTGCAAG GCCGTCAATT	6900
GCTTAAAGGC TGTTCCTAAG TCAATCTGCC CCCCAACTAG CTGACGAGAA ATCTGGTTCA	6960
CATCGCAGAC TTTTTCGATG TTATAAGAAG AGGAGGTCAC GCGCTTCATG CGCAAATATT	7020
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CCCCGCGAA TGCGCGATTG GAATCATGGT ATCTTCTACA CGATGGATTT CTGAGCCACT	7140
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AAAAATCTT TGCCATGAAA TCATGACAAA GATTGATTAC TCATTTTGAT TATCCATCTG	7320
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ATTGAGGTCT ACCTTTTCAC CTGCTCTAGG ACTTTGTTCA ACAACCATGC CTTCTGCACT	7440
ACCTGCAGGC GCTGTCGTCA CTTCTACAAC TTCTATATTA GCTTCCTTAA TCCCAACAAT	7500

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TTGAATCAAA	TTGTTCTTAG	TAAACTCCAA	GCTAGAACCA	ATGTAACCTCG	GCATGGCAAC	7560
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CGTTCGGCA	CCTGGACTTT	GTTTCATAAT	CGTTCCTGGT	TCGCTTTCGC	TGGACTCTTC	7680
TTCTCTATC	TTAATCAAAT	TCTCAGGAAC	CTTCTTCTGC	TTGAGTTCTG	AGATTACTTC	7740
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CAAACAATT	TGAGTTGCCT	TGCTCAAGTC	ATAGGTCGTA	CCTTCTGGTA	GACTTTGCTT	7860
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TCGACCAGTT	CCAGCGCCAG	GATCTGTACG	GATAATCCGC	CCTTCTTCCA	CCTTTTCACT	8100
AGCCTCTGTC	TTCTCCTCAC	CAATCTCAAA	ATTGGCTTTT	TTGAGCGTTG	CCTTGGCCTC	8160
TGCAACTGTC	TGACCTGCCA	CATCTGGAAT	GGCAATGGTT	GCAGGAGTTC	TGGATAGTAT	8220
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GTTTTTGATT	GATTGTGTT	CTGTTTGC	TTGAACCTTA	GGAATAGATG	TCAAGGTACT	8400
CTGAGAAACC	TTCCGCAAGG	TCTTGGTATC	TGCCTTGCTC	GTTTCATCAA	AGATTAACTT	8460
ACTTTCATTT	CTACGATTGT	AGGACAAGCT	ACTAGACAAG	TCCACATACA	TCTCTGAAAC	8520
CGAGCGGTAG	CGATTGGTCA	ACTTTTTAGC	AGTTGCCTTG	ATAATAACAT	TTTCTAAAGC	8580
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AATAATCCCC	ATGGCATAGA	TATCACTCTG	CACAGTCGCC	TTCGAACCAC	GCGCCTGCTC	8760
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ATAGCGTTTG	AGGTCCAGTC	CAGCCACATA	CTCCATAGCT	AGGTACTGTT	GACCGTCTTC	9060
CTCGCCAATA	TCTGTTATCC	GAACGATATG	AGGATGGTCT	AGATCTGCCA	TAGCTCTCGC	9120
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CACTGCCACT	TCTTCCCCAT	CTAAGATTAA	GTCTTTGGCT	AGGTAGACAT	CCGCCATACC	9240
TCCTCGACCA	ATCTGTTTGA	CAATCCGATA	GCGTCCGGCA	AAAATCTTGC	CGATTTGAT	9300

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CATTCTGCAT CCTCCTCGTT CATAGAAACA AGGGCAACCG TAATGTTGTC TAAACCTCCT	9360
GCATTGTTAG CAAAACGAAC AAGTGTCTCC GTTTTATCTG CTAAAGGAAT ATCACTGGTT	9420
ACAATATCAC GAATCTCACT GCCTGAAATC ATGTTGGTCA AGCCGTCACCT ATTGAGCAAG	9480
AGATAGTCAC CTGACTCAAG GATAACTGTC CCAAAATCAG GCTGAATTC ATCTTTTGC	9540
CCAATAGACT GGGTGATAAT ATTTTGTGC GGATGAGCTT CTGCCTCTTC TGGTGTCAAT	9600
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TCTCCACGAA TCAAGCCGAT ACGCGAATCA CCAATATGAG CATAGATAGC CTGATTATCA	9720
ATAATAGCAA GGACTTCCAA AGTAGTTCCC ATGCCTCTGT AAGCTTCATC CTGACCAAGC	9780
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GCGATATTCC CTGCGCGATG ACCTCCCATC CCATCAGCTA AAATAATCAT GGTACGTCCA	9960
GCTCTATTGA CATAGTGGTT GACATAGTCT TGGTTATTG TTCGTTTCTG ACCAACATCT	10020
GTTAATAATG AAATTTCCAT GTGTCAGTTC CTTCCTAATC CGATATCTTG CGAAATTGAC	10080
TGATGAAGAA TCCATCACTT CCATACAATT CAGGTGTAAT GAGGATACAG CCGTCTTTCA	10140
TGATATCCTT ACATTCATGT TCTAGTTTTC CCTGCTCGAA CTCGGGATGA CTCTCTAAAA	10200
AGGCCTTAAC GACTTGAAAA TTCTCCTCTG AGACGATAGT GCAGGTGCTA TAAGTTATTA	10260
TACCACCTTT GCCTAGTATT TGACAAACAC TACCTAATAT TTCTAACTGA ATTCCTGCA	10320
AGGACGCGAA ATCTGCCGTT TCTTTATTGT ATTTGATATC TGGTTTTTCG CGCAAAAGAC	10380
CGATTCTGA ACAAGGAGCA TCCACCAAAA TCTTATCAAA GGAATCCTGG TCAAAAACT	10440
CATGCACCTT TCTGGCATCC AATTTTGTGAG TTTGAACCG ATCTTCAACT CCCAGACGTT	10500
GGGCATTTTC TTGAATTAAA TCCAACCTGT GGTGCTACAA GTCCAGAGCA GTAACCTGAC	10560
CTGTCGTAAG ATAAGAGGCT ATATGGGCTG TTTTCCCACC TGGAGCCGCA CAGGCATCAA	10620
GCACTCGCTC ATCACCTTGT AAATCAAGCG TCGGAGCAAC CAGCTGACTG GACTCATCTT	10680
GGATGGTAAT GGCTCCATCC GCAAACAAAT TATGCCCTGC AAAATGCCCC TGCTCCTTAA	10740
CCAGACCAGT GGTGCTAAA AGGGAATTAT TCGCCTCCAA CAAGGCTTGG ATTCCTCTT	10800
TTCGACTTAG GTCTGTTACA CGAATACTGG CTTTGTTCG CACTAACAGG CTTTCAAAGA	10860
TGGCTTTTGC TCTCTCCTCT CCGTATTCTT CCTTGAGTTT GGCAACTAGC CAACTGGGA	10920
GAGAATAGGC AATGGAGTCA CGCTTGTTTT TTCGCTTGAT GCTAGCAATA TCTGGCCAGC	10980
CTTCACGCAA GATACGGCGA AGGACAGCGT TGACCAATT TTTTACGGA	11040

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GTTTGGCCAA	TTCCACTGCT	TCATTAACCA	CAGCATGATC	TGGAATCTTG	TCCAAATAGC 11100
GGAGTTGGTA	GGCACTCATG	AGAAGAAGGA	CATAGAGCCA	GCTGTCTAAC	TGGTCTCTGT 11160
CTTCGATAAA	GTGGGATAGG	TACCATTCCA	GAGTCAGTTT	ACGGGCTACC	GTTCCATAGA 11220
CCAGCTCGGT	CACTAAGCCC	TTGTCTGCTG	CCAAAAGTTG	ACTTCCCTTT	AGATGCTTAT 11280
TTAAGGCGAT	ATTTGAATAT	GCTTGGTTCA	CAAAAACATC	CTCTAGCACT	GCTAGAGCTA 11340
AACTTCTAGC	CGTTTCTACT	TTAGTCACCA	AATCGTTCTC	CTACAGTCAA	TGTACGTCCA 11400
ACTCCGTTGA	GGAAGGAAGC	AATGTCCATC	TTAGGCTTAC	CAGCTGGCTG	CAC TTGTTTG 11460
AGGGATAGAG	CCCCTTCAGC	CGTTGCGACA	ATCAATTCTT	TCTTGCCGAT	AGAGAGAATC 11520
TCACCTGGAT	TTCCCTGACC	TTCTACTGGT	AGGGCTTCAT	AAATCTTAAA	GCGGTCGCCC 11580
TTAAGGAAAG	TATGGGCAAC	AGGCCAGGGG	TTCATTCCAC	GAATTTGGTT	AAAGAGTTGA 11640
CGATTGGTTT	TGTTCAGTC	CAGTTTTTCT	TCCTCTGGCT	TTATATTTGG	AGAGAAGGTA 11700
ACCTGACTCG	TATCCTGCGG	TTCAGGTTTG	ATATCACCAG	CAATATAGGC	AGGCAGAGTG 11760
TCCAAAAGCA	AATCACGACC	AACTAGCGCC	AATTTTTCAA	ACAAGGTGCC	AACATTGTCC 11820
TCATCTGTGA	TCGGAATGCT	GCGACGAGAA	ATCATATCTC	CTGCATCCAT	TTCTTAAACC 11880
ATTTCCATGA	TGGTCACACC	AGCTTCCTCA	TCCCTTGAA	TCAAGGCATA	ATGGATAGGC 11940
GCACCACCAC	GGTGTCTAGG	AAGGAGGGAG	GCATGAACGT	TGACAGCAAA	GTCCATGCTA 12000
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AGCTTCATAA	GATCTTCCAT	CTCTGGACTT	CCAGATAATT	TTTCAGGTTG	G TAGATAGAT 12120
AGTCCTGCTT	CCTTGGCAGC	CTGCTTGACT	GGGGTTTCTT	GGATAACTTT	TTTACGACCA 12180
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CCTTTTAAGA	CTGTTGCTGA	AAAGTCGGGG	GTCCCCATAA	AGATTAGTTT	TGTCATATCT 12300
TCTCCTTCTT	ATAAAAATTG	CTGCGGCTCA	TGGTCAATGC	TGAGACGGAG	CTCACTATTT 12360
TCCCGTTCTT	GAGTCAAGGC	TAAAACCTGG	TTGAGGGTCG	ACCCAGCTC	ATCTTCTAAA 12420
CGGTATTTAA	TTAAAATCTG	GTAATGATAG	AGGTGTGGG	TACGGGCAAT	CGGTTTTGGC 12480
GTTGGCCCCA	GAATGGGACT	GGTCTCTGAC	AAGCCTGACC	GCAAAATGTT	CATGACTTCA 12540
TAGGCACGTT	TGAAAACCTC	TTCTTCTTTC	TTGTGAGAAA	GGGTAATACC	AATCGTGAAA 12600
TAGTAAGGTG	GATAGCCGAG	TTGTCGTCTG	ATTCCCATTT	CATAGGCATA	AAAGCCTTCG 12660
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ACTTGACCTG	CCTTTTCAGC	CCGACCTGAT	CGACCTGCCA	CCTGAGTCAA	GAGCTGGAAG 12780
GTCTCTCAG	AAGAACGGAA	ATCAGGCAGA	TTCAAGGCCG	TATCCGCATT	TAGAACTCCG 12840

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ACTAGGGTAA CATTGGGAAA ATCCAAACCC TTTGCAATCA TCTGAGTACC AAGTAAAATA	12900
TCCGCTTCCC CTCGCCCAA CTGGTCAAGC AAGGCTTGGT GACTGCCTTT CTTTCGAGTC	12960
GTATCCACAT CCATCCTCAG AATGCGAGCT TGGGGAAAGA GTTCTGCTAG CTCATCATAA	13020
GCCTTCTGAG TTCCCGTCCC ATAGTAACGA ATACTGCGGC TCTTACAGTT AGGACAGACC	13080
TGAGGAATAT CCTTCGAGAA ACCACAATAA TGGCAGTTCA TAGTCTTGGT ATCCATATGC	13140
AAGGTCAGAG AAATATCGCA GTTGGGACAA GTATCCACCG TCCCACACTC CCGACACATG	13200
ACAAAGCTAG AATAACCACG GCGATTGAGC ATGAGAACCA CCTGCTCTTT TTTAACCAGA	13260
CGGTCTTGGA TAGCCTCTAG CAAAGGAGGC GTAAAGTTTG ACGTCTCATT TTGTCCGATA	13320
TAGTCTCGAA AGTCAATCAC TTGAACCTCA GGGATTGTAG CCAAAGGATT GGCACGTTGG	13380
GTTAGACGTA AGTGTTGATA GACGCCTTTG CCAGCACGTG CCCGGCTCTC TAAGCTCGGC	13440
GTTGCAGATC CAAGTACCAG AGTTGCTTGA TTATACTGAG CCCGTAAAT AGCTACCTCT	13500
CTGGCATGGT AACGGGGATT GCTGTCCTGC TTATAAGCCG CTTTCATGCTC TTCATCAATA	13560
ATCATGACAC CCAGATTTTT CAGAGGAGCA AAGATAGCAG ATCTGGCACC AACAACAAC	13620
TGGGCATCGC CACGCTCCAC CTTGCGCCAT TCATCATACT TTTTCACCATT GGATAATCCT	13680
GAGTGAAGAA TGGCTACCTT GTCCCCAAA CGTGCTATAA AACGCTCGGT CATCTGAGGA	13740
GTCAAGGAAA TCTCAGGTAC CAGCAAAATA GCTGTCTTGC CCTTATCCAG GGCACCTTGG	13800
ATAATCTGCA AGTAAACCTC GGTCTTCCCA CTTCTGTAA TCCCTTGAAG TAGAAAGGGA	13860
GGTTGAGAAC TGCCAATAGA ACTCACAACC GCATCACGCG CCTGTCTTTG TTCTGGATTT	13920
AACTCCAAAG GTCTACTTGC TTCAATTCCT TCAAAATAAG CAGCCGAGCG TTGAACTTCC	13980
TTTTGGACTA TGGTAACAGC ACCTTGATCC ACAAAGAAGT TGAATTGCTC TCGCGAGTAG	14040
GACTCTAACA AGCTAGCCAA GGAAGCGCTC TCTGGATGAG ACAGCAGATA ATCTCTCAGT	14100
TCCAACTTTT TCTTGGCAGC TGTAGAAATC TCAACACCTT CTAATTGAGC ATGGTCAACC	14160
TCATACCAAG ACTGGGTCTT GACCTTCTTT TGATCGACTG CCTGATATTC CAGACCAAGC	14220
AGGCCTTTTC TAGTCAAACG CATCATTTCA GCTTGCTTGG CAAGGTCTAG TGAAGAAAAG	14280
GCTAGCGAAT CTTCTGAACC AAACAGGCGC ACTCGTTCTT CCTGACTCAA GCCTTCCAGA	14340
GGATAGAGAA TCTTGTGATA GCTAGAATTC AGAAACCTG GAAGCATGGC CTTGAGGATA	14400
GAGATTTTGT AGGAGAAGAC AGATTTGCGT AACTCCTCAG CCAGCCAGAG TTGTTCTGGC	14460
GTGAGAACAG GAGAAAAATC CAGCACCTCT GCAATATCTT TTAAATCTTG CTCCATCTCT	14520
TCTCCATCTG ATTGGGACTT CAAACCAAGA ACAATCCCTT GAATCAGGCG ATTACCCTTA	14580

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CCAAAAGGCA CATGAACCCG CATCCCAACT TCCAGCATTC CCTCAAATTC CTCCGGAATC	14640
CTGTAACTAT AGGGCTGGTC CGTCTGCATC AAGGGCACAT CTACGATAAT CTTAGCTAGG	14700
GCCATCTTCT CACCTCCTCC TTGTCTAGTAC ATTCTTGCAA TAGAAAAAAT AAGATTGAGT	14760
CCCCCAACC TTAAATTTT TCACCATCTT CTTTTCTTT AGCAATTTGC TCTTTGATTT	14820
TCTTTCTTTC TTCTTCTTTG CGGCGTTTTT CTCTTCGAT ACGGCGACGC ACTGCTTCAC	14880
GTTTTCTTC TGGATCTGGG TGAATTGTAA CGTTTCCTGA TTCGATTCTT TCTAAAGCGC	14940
GAAGAGTTGA TTTTTCAGAC TTGAAACCTT GAGTTGCTGG GGCACCTGCT TCCAATTCGT	15000
GGGCACGTTT TGCTTCCAAG ATTACGAGTG AATATTTTGA AGGAACCTTG TCGAGCAAGG	15060
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TTGGAGATTT TGGTAACATC TCCTGATAGT GACCAATGAC ACGATCCACA CAGAAGTGTT	15180
CTGCTTCAAT CACACATTTG ACACGTTTCA CAGCTAGGGG TACCTGATCG TTGACAATCG	15240
CATAATCATA CTCACGCATG AGGGCAATTT CTTCCTTGGC CTTTTCGATT CGTTGGGCAA	15300
TCACCTCTGC ACTATCTGTT CCACGACCTA CCAAGCGATC TTGCAATTCA TCCAAATCTG	15360
GTGGTGTCTG GAAGATAAAG ACAGCATCTG GAACCTTTTT CTTGACCTGA AGAGCACCTT	15420
GAACTTCAAT TTCAAGGAAA ACATCGATTC CCTTGTCCAA GGTTTCATTG ACATAGGTCA	15480
GAGGAGTTCC ATAGTAGTTA CCGACATATT CTGCGTATTC CAACATCTGT CCTTGACGAA	15540
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TTTCACGTCC TGCTTGAAGG GCAAAGCTAG TTTGCACTCC TTCAAAGCCG TTAGCAATTT	16080
CTTCCAAATC ATGGAGACGC TTGATGTAGC TTTCAAGAGA CTCACTACGA GCACCTGGAC	16140
GGGCTGCGCT CAAGGCATCT GCTGCAGCGA CGATAACTGC TATCACGCTC TCAGCTTCAA	16200
CATCTCCGTG GTGACTAGCA ATCGTATTCA CCACAACCTG GGGTTCCTTG TACTTACGGG	16260
CCAATTCAT ACCGATTTC ACGTGGCTAC CTTCAACCTC ATGGTCAATG GCTTTCCCGA	16320
TATCGTGAAG GAATCCAGCA CGACGGGCAA GAGCCGATTT TTCACCAAGT TCGCTCGCCA	16380



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TGATACCAGC	CAACTTAGCA	ACCTCAATCG	AATGGCGCAA	AACATTTTGT	CCATATGAAG	16440
TACGGAACTG	CAAACGTCCC	ATAATCTTCA	TCAAGTCTGG	ATGAAGGTTT	GGCGCACCAA	16500
TTTCATAGGC	AGCAGCCTCA	CCGTATTTCAC	GAATCTTATT	GTCAATCTCT	TGACGGTTTT	16560
TCTCAACCAA	CTCTTCGATA	CGAGCTGGAT	GTATACGACC	ATCTTTGAGC	AACATTTCCA	16620
TAGTCATACG	GGCAATCTCA	CGACGAATCG	GATCAAATCC	TGACAAGGTC	ACCACTTCTG	16680
GTGTATCGTC	GATAATCACA	TCGACCCCTG	TCAAAC TTTC	AAAGGTACGA	ATGTTACGAC	16740
CTTCACGACC	AATAATGCGT	CCCTTCATAG	TATCGTCTGG	CAGATGAACT	GTTGAGTTTG	16800
TTGACTCCGC	TACATATTCA	CCAGCGATAC	GTTGCATAGC	TTGAACCAAG	ATGTCCTTGG	16860
CCATTTTGTC	AGAACGTTCC	TTGACCTCTT	GCTCAGCTTC	GCGAATGCGA	CTGGCAATCT	16920
CCCTGGTCAA	GTTTTCTCTT	GTCTGAGCCA	AGATAATATC	TCGTGCTTCT	GCCTGAGACA	16980
GCGCACCAAT	ACGCTCTAGT	TCTGCTTCTT	TTTGTCTTTC	GACTTCCTCT	AATTGCTCTT	17040
CACGCGCATC	AAGGTTTTTC	GCTCTATCAG	AAATACTTTG	TTCTTTTGT	TCAAGTGTTT	17100
GTTCTTTACT	CGTCAAATTG	TCGTCCTTAC	GGTCAAGGCT	AGTAGCTCTC	TCTGTCAAAC	17160
GACTTTCGAT	TTGTTTGAGT	TCTTGACGTT	CTGATTTGAA	TTCAGCGTCC	ACTTCTTCAC	17220
GGTATTTTCT	GGCTTCTTCT	TTGGCCTCCA	ATAGTGCTTC	TTTTTTAAGA	GACTTGCTTT	17280
CACGTTTGGC	TTCATTAACA	AGTAAATCCG	CTTCACGCTC	AGCTTGTTCCA	CGTAAATTAG	17340
TTGCTTCTTG	TTCAGCATTT	AAAAGCATCA	ACTCTGCAGC	TTCTTGAGAT	GATTTTCATCT	17400
TAGCTGAGAT	GCTGACATAT	CCAATGACTA	AACCAATGAT	GACGGCAAAA	ACAGCAATCG	17460
CAAGCGACAT	GATTTCCATG	TTTTTACCTC	ATTTTATTGT	TATCCGAAT	GACATACATT	17520
CTTTTACATT	CTACCATAAA	AAAGTGATTT	TCACAAACCT	AAAATAGAAT	ATGTTTTGAG	17580
GAATTTGGAA	CACATTTACC	AAAATAAACT	TGTTGTTTAG	AAATAGTAGT	TTAGTAGAGA	17640
CTTGAGAAAA	AGCCTACCTT	TCAATAGACT	TAGTAATGAT	CTTTAAAGGA	CAAGAAAGCC	17700
ACGCTATCTC	CATCCATCAT	ATAAATCAAG	CGATTTTCTG	CATCAATACG	CCGTGACCAG	17760
GCTCCTTGGT	AATCATATTT	GAGTGGTTCT	GGTTTACCTA	TTCCTGTAAA	GGGATCACGT	17820
TGAATATCCT	TGATTAGTTT	ATTGATTCTT	TTTAACGTTT	TCTTATCCTG	ATTTTGCCAG	17880
TAGCAATAAT	CTGCCCAGGC	ATCTTCTGTA	AAC TTGAGCA	GCATTTCTTA	CTCCTCAATA	17940
ACATGGACCT	GAGTACTTCC	AGCACGAACT	TGAGCCATTC	CTCGCAAAAC	CTTATCAGAA	18000
AGTTCCTTAT	TTTGAGCAAT	TCTCAGGGTT	TCTTGAGTAC	TATCCCACTC	ACTCTTTGAA	18060
AGGACTACAA	TGTCCTCATC	TGGATTTTTA	TTGACCACCG	TCAAAGGCTC	AAATTCATCA	18120

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TTTACCTTCT TCATGTAGTC CTTTAAATGA TTTCGGAATG TTGAGTAAAG GACTGCTTCC	18180
ATAACCATAC CTCGTTTTAG CTCTTTTCCA CTATTATACA CGAAAAGAAA GAAATTGTCA	18240
GGAACCTGTA CAAGATTTTC TTTTCTATCT ATTTATACTC AATGAAAATC AAAGAGCAAA	18300
CTAGGAAACT AGCCGCAGGC TGTACTTGAG TACGGCAAGG CGACGTTGAC GCGATTTGAA	18360
TTTGATTTTC GAAGAGTATT ATTCGTAAAA AATCTCAAAA AGCCTACCTT TCGGTAGACT	18420
TAGTTTGTTT CTATTC	18436

(2) INFORMATION FOR SEQ ID NO: 88:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 7001 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 88:

ACGTAGAAAA ACTATTTCTA TCACAGATAA TATTCCGTAT GTTGTTGGAG GTATTGAAAT	60
AAACGTCCTA GGTATCTTTC TCAGTCTATG TGACTTACAA GGGAAAACCTC TTTTCGAGAC	120
AGAAATTTTG AATGAAGATT ATCCTATTTTC AGAAATCAAT TCCACCATTA CCAATATGAT	180
AAAAACAGCT ATAGAGTACG TCCCTTTGGA AACAAAATTA CTTGGATTG GCTTATCAAT	240
ACCTGGACAT TATAACAAAG ACTCCGGAAG TATCATTACA AACAAACCCA TATGGGAATC	300
TTTTAATTTA TTAAATGTAA TTAAAAGATT CAATTTTCCT TTTATTGTAA AAAATAATAT	360
CGATTGTATG GCTATAGGAC AATACCTTTT TAATCCACAC AATACCCCCG ATAACCTTAT	420
TTTCCTACAC GCTGGATTAG GTATTTACAC TTCTTTTTC ACAAAGAAA AAATAGGAGC	480
CTCTAAAAAT CCTTATATCG GAGAAATTGG ACACACCATT GTCGAATTGA ATGGGCAATA	540
TTGTGAATGC GGAAAAAAG GTTGTTTACA AACATATATT TCGGATGCTT GGTTAATCAA	600
ACACGCCCAA TTATTATTTA AAAATTCCCA ACTAACTGTA CTAAAAAGCC TTGTAAAGAC	660
TGAAAAAGAC ATTCATTTAG ACACCCTTTT AACGGCTTAT AATTTAGGCG ACTCCGCTTT	720
ACGTCAACAA ATTGATAAAG GAGTCAATTT ATTAGCCACT TCTATTGCAA ATCTCCTCCT	780
CATCAATCCT GCTGATAAAA TCTATATCAA CAGTCAATTG CTTAATTATC AACCTTTCAC	840
TCATGAAGTC AGGGATAAAA TCCAAGACCA GCTCCACTTC GTTCCCTTTA CTCGTAATAT	900
AGAAATTGAA ATTTTACCTT ACAACAAACA TCGTGGAGT ATAGGAGCTT GTGCATTAGC	960
TATCGTCGCT TTTTTCATAG AACATAGCAA TGTATTACAA GATATTATTT CACCTTAATA	1020
TATTAGAAAT CTATAGACCT GTTTAAATCA ACTATAACCT GTAGTAGATA TCTCGTATTT	1080

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AGACAATATG AAAACAAGAC GACTTCCATA TAGGAAACCG CCTTCTCGCT ATGTTGAGTG	1140
ATTTATATTA AAATAACTTT TCTTCTAGCT GCATTTTATT ATTATAAAAA CATTTCATCAT	1200
AACCCCCAGA ACTTAAATAA CAATTTTAT TCAAGATACA TACTCCTAGA ATAAACTTTA	1260
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TTTGAATAGG GCGTTATCAC AAGAAAAGCA TCTCCACGTT TCAACTTCAT ATGGCTCAAA	1440
AACAATCAAT TGATGCTAAA ACCTGTACCT AGATGTTTCG GTTCATAAAA CCATGAAACT	1500
GTAAAAGTGG ATGAAATTGA TAGCGATAGT CAAATCAAGA GGCATCATAA CTCTAAAAAG	1560
TCACAATATA TAAGTTCATC CTCGGAAAAA TATCATTTCTA ATTGTTGAAA TGCCTACATG	1620
AAAAGAAACG TCAATGCTC ATGAAACAAC GAATACAGGT ATCAAAACTA TGACAAAACA	1680
AATCCCTAAA TTTACTAAAG ACACTGCTCA ACTTTACACC TGTAATGGT TGTGTATAA	1740
TAAAGTTACA AAGATGTACG ACCACACTGT TGTAATCAT AGTGTTCGCG AATATATTAC	1800
TGATAGCATT TCTACAAATA CAAGTAAAGA GAGCGGATGA GATTCAAACG AAATATGTCA	1860
GTGCTTTGGC ATTCCTAGCC TTCATATCAT TTAAAGAATT CTATAGACAA AATTTTTC	1920
AATACAGACA CTCGTAACAA CTGCTTCATT TTTCTACCA CATATTTAGG AACAGGATAA	1980
GATACAAGAG TATTAATCCA TAGCTCAGTT CTATACCAAT CTAAGACAAA TAAGCTAAAA	2040
AAACGATTGA TAATAAGCAA ATAGATTCCA AATTTTCTCT ATCTGCTCAT TTAAATAAAC	2100
AATACTAGTG TAACTATCCT TCCAGTCAGA AGCTTGTCAG ATCACACCGA AAATCTTCT	2160
AAAATTTATC TCGTTAGGCA ATCAAGCAA AACTCGACGA TAGTACAAAC ATTATCATAC	2220
AGGATTGACT TCCTAAATTA TATACTTTAG TAAGGTTTTT GGATAAGAAA AAAGGTTTAT	2280
TTTACATTTT TAAACATTCT TTTCTAAGAT GAAAAACAGA ATTTTTCGAT TGTGATTAA	2340
AGCAACAAGA AGATTTTCAG TATCATCCTA TAGATACGAG CTAATTAAGA AAAACTACAT	2400
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TACGATTATA TGATACAGGC ATCCAAACAA TCACAATTCA ACGCAAGCCA TTGGTTTCGC	2520
TATTTGCGAA AAGTTATTTT TGAAGACTAT TCTTATTTAA CAAACCAAGA TGTAAGAAAAG	2580
TTGCTAGACT CCAAAGAACT AACCCGTTTT CAAAAAATTA GCTTGAAGTA TGCCTTTCAA	2640
GAGCATACTC CAACTCATAA ATATGTGATT TCATTAAATA AACCTGCTAA GTTAACCAAT	2700
GTTCAAAAAT TGATGGAGAA ATACAAACAT GGATAAAATG AAACCGGTCT TCCAAGCCCT	2760
AAATAAGGAA TTAATTCAGG AAAATCTGAC TTTAACAATT ATCTGTGTCG GTGGTTATGT	2820

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CTTAGAATAT	CATGGTTTAC	GTGCCACACA	AGATGTTGAT	GCTTTTATGG	CTCTATAATA
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CCCATATGAC	CTATAATGAA	AAGCGACAAA	ACAACTCATT	AGAAAGAATC	ATATGGAACA
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CATCAATAAG	GATACACACA	AGGAAATCAT	CGCCAACTG	GACTACGACG	CCCCATCTTG
CCCTGAGTGC	GGAAACCAAT	TGAAGAAATA	TGACTTTCAA	AAACCGTCTA	AGATCCCTTA
CCTCGAAACA	ACTGGTATGC	CTTCTAGAAT	TCTCCTTAGA	AAACGCCGTT	TCAAGTGCTA
TCACTGTTC	AAAATGATGG	TCGCTGAAAC	TTCTATCGTC	AAGAAGAATC	ATCAAATTCC
TCGTATTATC	AACCAAAAAA	TTGCGCAAAA	GTGATTGAG	AAGATTTCTA	TGACCGATAT
TGCTCATCAG	CTGGCCATTT	CAACTTCAAC	TGTCATTTCG	AAGCTCAATG	ATTCTCACTT
TGAGCATGAT	TTTTCGCGTC	TTCCTGAGAT	TATGTCCTGG	GACGTTGAAA	CAGTCCGGGG
AGTGAAGTGT	TCAATCGGGA	GATGGAGATG	AGCTTTATTG	CGCAAGATTT	TGAAAAGCTC
GATATCATCA	CTGTTCTTGA	AGGTAGAACA	CAAGCTGTCA	TCCGAGATCA	CTTTCTTAAA
TATGATAGAG	CCGTCCGATG	TCGCGTCAAA	ATTATTACTA	TGGATATGTT	TAGTCCTTAC
TATGACTTAG	CTAGACAACT	TTTCCCCTGT	GCTAAATCG	TTCTTGATCG	CTTTCACATT
GTACAACATC	TTAGCCGTGC	TATGAGTCGT	GTGCGTGTCC	AAATCATGAA	TCAGTTTCAT
CGAAAATCCC	ATGAATACAA	GGCTATCAAG	CGCTACTGGA	AACTCATTCA	ACAGGATAGC
CGTAAACTCA	GCGATAAACA	TTTTTATCGC	CCTACTTTTC	GTATGCATTT	AACCAATAAA
GAGATTTTAG	ACAAGCTTTT	GAGCTATTCA	CAAGACTTGA	AACATCACTA	TCAGCTCTAT
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GACAATCTTA	AGCAGGTTCA	TCCTATTTTT	CAGACTGTCT	TTAAAACCTT	CCTCAAAGAT
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AATAATCTCA	TCAAACCTAT	CAAGCGCAAT	GCCTTTGGTT	TTCGAAACTT	TGAAAACCTC
AAAAAACGGA	TTTTTATCGC	TCTGAATATC	AAAAAAGAAA	GGACAAAATT	TGTCCTTTCT
CGAGCTTAGC	TTTTTTTCAA	CCCACTACAG	TTGACAAAGA	GCCGGAAAAA	GGAACAGCCT
TAGCTTTCCT	TTCATTTCCT	TTTATTTCCT	TCGTAGTAAA	CGTGCTAGCT	TCCACAAAAC
AAACAGGATT	CCCAGAAATG	CCAGTACCAC	TAGCCACGCG	TACAACCATT	GAGAGGTTGC
AACACGCGAT	ACAGATTGTC	CTTCTTTCGT	AAAAGCAACC	CTCGCAACTG	CAGCTGTTTG
TGGATCTGAT	TTTTTGATAA	CAGCGACTCG	TTCAAAATTC	ACTAATAAGC	GTTTATTAAA
GGTAGGAATC	GGATCGCAGG	TTATCAAGGT	CATGATATTT	TTAGAGCTAA	CCGATTCTAA

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TTTTTCCCAT	TCCGACGGTA	AAATAATCTC	TGTGTCCATC	ATCTGATATT	CTACAATTTTC	4680
CTGGCCATTA	TCATAATAAA	GAGCATCTCC	AAC TTTTAGC	TGATCCAAAT	GGCGGAAAAA	4740
GACATGGCTT	GGCTCTGCAC	GGTGCCAGC	AATCACTGAG	CGAATCCCTG	TACCATCCAG	4800
AGGCAGCGGT	GTACCATCCA	CATGAGCCAA	GCCCATCCCT	AAATGATGAT	AATCTGCTCC	4860
CAAATAAACC	GGCTCCATGA	TTTCCAAAC	TGGAATAGAC	AAGTAACCAT	AGACTGCATC	4920
AGGGTCGTCA	GACACTTGGT	AATTGACCTC	ATATCCCTCC	GCCAAAAAAG	GATCTACAAT	4980
GCGATTTTGC	GAAGCCAAGC	GTTGATTGTA	GGCGAGAGAA	TGGTTCTGTT	GTTCTTG GTA	5040
CATTTCAGTT	GT CATGGATT	TCACAAATGT	AGCATGACCT	TTCACCTGTC	CAAGAGACTG	5100
CAACACCATC	TGTCCAAAAC	AATAAATAGG	AATCAAACAG	GCTACCAACA	TCAACAAGTA	5160
TCCCAATAAG	GCTCGTAGTT	TAGTCCTTGA	CATGACGCCC	CTCCAATTGC	TTTTCTAGTC	5220
CTTTGACAAT	CCGTCGATTA	CGATACACGC	GATACAGCAA	GAGAAGGATG	ACCGCCATCG	5280
CTCCTAGTAA	TAACCACAAC	CAGAATTGCC	CACGCTCTCT	CACCGCTCGA	TTCGCTCTG	5340
CAATTGGTGC	CGTATACGGA	ATCCGCTTCC	CACGTACCAA	CAGACGATGA	CTGTTAATCA	5400
TATACGGTGT	ACAAGTCAAC	AAGGTCGCAT	AATCTTCCCC	ATGTTGAATC	AAGACAGGCT	5460
CAAAGTCATT	CGGCTCCACC	GTC ACTATCT	GATCCACTTG	G TAGGCCAAC	ACCTGATCTA	5520
AAACGTGAAG	ATAAAAGATA	TCCCCTTTT	TCATCTTATC	CAATTGACTG	AACAATTCTG	5580
CCGTGCGCAA	TCCTCTGTGA	GCAGTGATCA	CTGTATGGGT	ATTTTCACCT	CCAACAGGCA	5640
GCGAAGCCCC	TTCTAACAGC	CCTGCCCTT	TCTGAAGAAT	GTCTCTACTC	GTTCCGACAT	5700
ACATCGGAAT	TTCTTGATCA	ATCGCAGGAA	TTTCCACATA	GCCAATCCGC	TCATGGACCT	5760
TTAGCATATT	GGCATATTCT	GAGACGCCCT	TCTTTTCTC	TTGCTCTGTA	AAAGGATCAA	5820
GAATTTCAGA	TGTTTTCAAG	GTCGCATTGA	AGGCTTGAGC	CAAGCGCCAA	CGCTCCTCAA	5880
GTTCTGCCTT	ATCCATCTGG	GAAACCGTCT	CATCAAATC	TTTAATAACC	TCGTTTGA CT	5940
CAATACGATA	ATAATAACGA	GACACCAATG	GATATATCGC	AACGGCGAAT	CCTACTAAGA	6000
AAATCAGAAG	AAGGATCAGC	GGATGTTTCT	TCTTTTGT	GCCTTTT	CGTGAACGTC	6060
TACTGTTGTC	CATCCTCCAC	CTTCACTTCC	TTCTTGCTG	CTTTCAGCGC	CTTCAAAGCC	6120
TTTTCCGGTT	GTTTTTCTT	CTTGCGCAAG	CGTCGAATAA	TCCATAAAAG	AATCACAATC	6180
AAACCAACTG	CCACATAAAA	CAGGTAGCGA	TAGAGATGAC	TGAGTTTGTT	TGCTGCAATA	6240
AATTCTTCCT	CAACCTCTGC	TACGTACGGT	ATCCGATGCC	CCCGAACCAA	TAGACGATGG	6300
GTATTGATCA	TGTATGGCGT	ACAAGTCAGC	AAGGTCACAT	AATCATGACC	TGGTACAATC	6360

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AATAAATCAT CAAAGTTCGT CGGCTCAATC ACCTTTACTT GATCCACTTG ATAGGCCATC	6420
ACTTCCTTGA TATTGTGCAC ATAAAACTTA TCCCCAACTT TAAGTTTGGT CAAATCCGTA	6480
AACATCTTAG CTGTTGGCAA ACCTGTATGT GCCGTAATCA CCGCATGGGT CGAATTGCCT	6540
CCGATCGGCA GAGAAGTTCC CTCTAGATGC CCAGCCCCTT GCTGCAATAC CTCTTCAGCA	6600
GTACCAGCAT AAACCGGCAA ATCCACGTCA ATAACGGGGA TTTCCACATG CCCCATCCGC	6660
TCATGGATTT CTAACATACG TGCATACTCT GCTCGCCCTT TTTTCTTCAT TTCTTCCGAC	6720
CAAGGATCGC CACTCACTAC ATTATTCAAA GAGTCATTGA AGGCTTGTGC CAATTTCATT	6780
CGTTCATCAA TGTCAGCCTC ATCCAACGTT GCTTTTTCTT TATCAAAGTC AGCAATTGTG	6840
TGATTTGATT CCACTCGATA ATACAAGCGA GACACCAGCG GATACGCCAT TACCGCCATT	6900
CCAATGAAAA ATACCACTCC TAATAGGAGA TTATTTCGTT TTTGCTTTTT TGTTTTTACC	6960
ATTTTTATCA GCATCCCTTT ATCTTCAAAC TTCAGGGTAT C	7001

(2) INFORMATION FOR SEQ ID NO: 89:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10411 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 89:

GAGGGAGCTT AAGAAGTTAC CACCGTCCTC TAGCGCCTTA TCCGCATCAA AGTTAAGGTT	60
GATATTTTTA AAAGTGTGCG CAGCTTGTGA TACGATGCTT TGTTTAAGGT CATTTAGGGT	120
TTTAGTGAAG TCTGCATTGC TGAGGATATC ACTCTTTGAG AGATTCAAGG CAAAATTGAT	180
GATGATATTG ATCTGGTTTC CTGTTATGAC CTGATCAAGT TTGTAATTTT TTAAGGTATC	240
TTCAACAATC TTGCGGATAT CTTCTTCTGT CAGATTTCCT TTACTTTCTT TAGCTTTGGC	300
GAGTCCTGAC TTGATATCAG CTAGGGCAAC GTTTAATTTA TTAGCATCAT AGCCTGATTT	360
GTCCTTGTTT TCAGCATTGA TATCTGACAA AGCTTTTAGC TCTTCTTGAG CCAAATCTTT	420
ATTAGCTTGT GGCACCTTGG CTCCATTAGC CTCTAGCGAA TAGTAAATCC CTGCTAAAGC	480
ACTTCTCCTT GTAACGTGAA TAGGGGCTGC TACAGTGATT TTGGCATGTT CCATACCCAG	540
CGTTACTGCT GCGTTTCGGT ACATATCCTG AGTCACCTTA GTGATATTTT CTGGTGTTTC	600
AATCTTGACC TCAAGTGCGG ATTTGTCACC TAGCTTTTGA ATCTTGCTG ATGAATACAA	660
CTGTAAGCTA GAGTCATTGG CCACATTCAT GATTTTAGAA TAAACATCAG GTGTCATGGT	720
CTTGAGTTCT TTGGTATCTG TTGAGGCATT GTAGCCAGT TTTTAAAGAG TTTGATTTTT	780

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TTGGTCTTCA GATAGGGAGG AACCTAGGAC ATATTCAGGT TGGACATAGG TTTCATCGAT	840
AACTTTTGA ACATCTGTTG CTGCATGGAC GCTATTCATA GCTGTACTG CCCACAAGAT	900
CGCAGCGCTA GTCAGAAAGA GTTCTTTCT CATAGGGAAT TTCCTCCTTT ACTTCTTTAG	960
AGTAATATAT CTATCTTAAA GAAACTTAT AACAAAAACA CCTGGTCTAG CCAGATGTTG	1020
AAAAGAGAGT GAAACATTTG ATGATGTAAA GGTAAAGTCG TACCTGTCTA GAATAATAAT	1080
AGTTTCCTCC ATTTACATAG AGTTCAGCAC CGTGAAAAAT GGAAATGGGG TGAATATAAC	1140
TATAAGTCTT TCCAGTCCTA TTACCAAGCA AGGGGCAAC AGTCTCACGA GAGTACTGTT	1200
TGGCTAGAGC CAGGGTATTT TCCTTGCCAT TTTGGGCGAT AAAATCGATA TAGGCAGGTC	1260
CAAAATTATA GGCTTGAACA GCTGTCCAGA TATCTACCCC CTTCTTCTGC GCCAGATAGA	1320
GATTGCCTGT CAGAGTTTGA ATGCCTTGCC GAATGCTAGA GGCATTATCA TTGATGGTGT	1380
TGGTGGAACC ACTTGCAGAC TCACTAGACT GCATAACATC GCCTTCTTTT CCTTTTGT	1440
CAGTATAAAT CATAGCAAGC ACAAGCTCTT CGTTTGCTGG GGTGTCTTGT TCACTCAATA	1500
TTTCTCGCAC CATGGGTGA TAGGTCATGA CTTGTTGAC ATCTTGATGA ACGCGGTAAG	1560
CTTTATAGCC AGCAAAAAGG AAGACTGCTA GTACAAGCAC TCTTCGAATT CGTTTAAACA	1620
TTATTTACTT TGGATATCCT CGATATTTT GATTAAGATA GAGTAGGTTC CATTTTCGTT	1680
TTGGATAAAC TCAACAGACT CGGCGTCTTG ATAGACGTTA TTGGGAACGA TGAGCTCAAT	1740
TCCATTTGAT AAGGAGAGTT TTTGGTTTTT AAATTCTTT AATTGGCGAC TGGCATCAAT	1800
TTTCATCAAAT TGAACAGGTT CTGGTACGGC TTCTTTGACT TGGTCAATAA AGCTCAAACG	1860
AGCCGTCAGA TTGTTGTCAA AAAGGTCATT AGCCAATTTC TCAGGTGACA ATTCATTGCT	1920
TTCTTCTAGG TTGTTGAAAA TAGCTGATTT GACCTTGAT TGAAATTGAA AATCATCTGT	1980
GTAAAAGAT TTAGCAATTC TCTGGGCTGT TTTTCCAGT TCCTTGATAG ATTTTTTAGG	2040
AGAAATCTTA GGAGCGACAG CAAGAAGATT ATCTGAAAAA TAGTTCAAAA AAGTCCCGTT	2100
GTACTTGATT CGTTTTTCAA TCAGGTGATA CTTGCTACTC TGAAGATTGA CCACCAAGGC	2160
CTCATCAGCT CCGTTTCCAA ATCCAGGCAG GTTATTCTGA GTTAGCTTGA TTGGATTATC	2220
AACTTCTCCT CCGAGGTGGG TCAAGGCTC CCGCAGGGCA ATTCGCAAGA AAGCGAAATG	2280
TTCTACACCT TCTTTAGAAA ATTGCACAAA AATCAAGTCA TTGGTCTTGA GATTTTCAGA	2340
AATGCTAAAC TCCTCTTTCC AGAGATTAGC CAGCGTACT GATGTCTCCA ACAAATCGTC	2400
TGTAATATGA TTGAAGAAGG GATTTTCTTC TTCGAAAATC CCAGTCTTGG CTTCATCTGA	2460
ATACACATGT TCAATTTTTT TACGCAGGTA TTCTTCGATT TTTGGAGTAA TATTGAGAAA	2520

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CTTATCTGCT AAGAACAGTT CGGTATCATC CGGACTGAAC TGGTGAATAA TGGCTTTCTT	2580
AATATAAATG TCCATAAAAG TTTTAGTCCT CGTATAATGG GAAGGCATCT GTCAATTCCTT	2640
TGACTGCACT TCTCACTTCT TCTAATACAG CCTCATTTTC TGAATTCCTA AGGGTTTAA	2700
TGATGAGTTC AGCCACTTTG CGACTTTCTT CTTACACAAA TCCACGTGCA GTAATGGCTG	2760
CTGCTCCGAT ACGAATCCCA CTTGTCTTGA ATGGTGACAA GCTTTCGTAA GGGATTGAGT	2820
TTTATTTTAA GGTAATATTG ACTTCATCCA ACAAGTTTGG AGCAACTTTG CCGTTTCTA	2880
CAACTTTAGT CACATCAACA AGGAAGAGAT GGTTTTCAGT TCCACCTGAA ATAATACGGA	2940
AATCAGGGTC TTGCAAGAAG ACATCTGCCA TAGCCTTGCT GTTCTTAATT ACATTGGCAG	3000
CATATTCCTT GAAGGCTGGA TCCAAAACCT CTTTGAAGGA AACTGCCTTA GCCGCCACAA	3060
CATGCTCTAA AGGACCGCCC TGAATACCTG GGAATAAGC TGAATTGATT TTTTTCAGCA	3120
GTCTTCGTC ATTGGTCAAA ATCAAACCAC CACGAGGTCC ACGAAGGGTT TTGTGGGTCG	3180
TTGTGTGTGT GATATGAGCG TATGGAACG GGCTTGATG AAGGCCAGCC GCAACCAAGC	3240
CAGCGATATG GGCCATGTCC ACCATGAGCT TCGCACCGAC AGCATCTGCG ATTCACGGA	3300
ATTTTGAAAA ATCGATAATT TGAGAATAGG CTGAAGCACC AGCTACAATC AGTTTGGTT	3360
TTACTTCTTG GGCTGTCTT AAGATAGCAT CAAAGTCTAA GAGTTCCGTT TTAGGATCAA	3420
CACTATAAGA AACAAAGTTG TAGGTTTGAC CAGAGAAGCT AACAGGAGCC CCATGAGTCA	3480
AATGACCACC TGATGCCAAA TCCATTCCCA TAACCGTATC ACCTGGCTCA ATCAAGGACA	3540
TGTAAGCCGC ACAGTTAGCT TGGCTTCCTG AATGTGGTTG AACATTGGCA AATTAGCAC	3600
CGAAAATTTT TTTTGCGCGT TCAATAGCAA GAGTCTCTAC AACGTCTACT ACATCAGTTC	3660
CACCATAATA ACGGCGTCCT GGGTAACCCT CGGCATATTT ATTTGTCAAG ATAGACCCTT	3720
GAGCTGCCAT AACAGCCTTG GAACTACGT TTTCCGAAGC AATTAACTCG ATATTATTTT	3780
GTGCGGCTT TCTTCTTTG GCAATAGCAT TCCAGAGATC AGCATCATAT GCTTTAAAT	3840
CATCTTTGTC AAAAAATCATA GGTCTTCTCC TTTATTGTGT GACTAGTCCA TTAGTTTGAT	3900
TTTACAATAA GAAAATCAAA CTAACAGATG CGAATAAACC GTTCTGTCAT TTTATCACAA	3960
GTATAGCCAA CTTTTTCATA AAATGCATGA GCACCCAGAC GATGATTGGC AGAATTTAAG	4020
CGGATAAACC CATAACCACA TCTTTTGTCT TCTTCTTCCA ACCCTGTAG TAACTTTTA	4080
CCAATACCTT GACCTTGCGC TTGAGGTGAA ACTGCTAAAG CTAAGATATT AAATCCTGCT	4140
TTGGAATAGA GTGATTCGTA AACTTCAGCG TGGACATATC CAAGTAAGAC ATGATTAGCT	4200
GCATCCTCAT AGCCAAGTAG GAAATGATGG GAATCCTGAG ACAGTCTAGC TAGTTGGCTA	4260
GCCGTTTCTT CTGGACTAAA AGTATAACCC AAAGCCTCTT GGTGATGTC ACATATAGCT	4320



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TTCACATCAG	TTTCTCTTAA	ATCTCTTAGC	ATCTCATTCC	TCCTCAAAAG	AAATCTTTGG	4380
CAACCGAGCA	AGAATATCTT	CTCGCTTAAT	GGCCCCTTGA	CGTAAGATTT	TCACCTTGTC	4440
TCCCACAAA	TTCAAAATAG	TTGAATCCTG	TCCAGTTAGA	AAAGCATCGT	CTTCCAGACC	4500
CAGAACCTCT	TGGTCAAAAT	CCTCTAGAAT	TTGATTAAAG	GTCACCTCCAC	TCGCCTGACC	4560
TGAGATATTG	GCAGACGGCC	CAATCAAGGG	ACCTGTCTCT	CGAATCAAAT	CAAGGGTAAT	4620
GGGATGACTA	GGCATCCGAA	ATCCAACAGT	TGCAAGGCCA	GAATTGACCC	AATAGGGAAC	4680
TCCGTCATTA	GCTTCGAGAA	TAATGGTCAA	GGGACCTGGT	AAAAAGATCT	CTACAAGTTT	4740
TTGAAGATAA	GTGGGCTGAT	TCTTTGAAAA	GTACAAGATG	TCCTCTAAAG	AGGCAACATT	4800
GAGATTGAGC	GCCTTGCTCT	TACGTCGACG	TTTAAGCTGG	TAAACATGGT	CAACTGCTTT	4860
TTCGTCTAGC	GCCTTAGCAA	AGAGACCGTA	AACTGTCTCT	GTAGGCAAAA	CGACAGCTCC	4920
ACCATTTTCC	AACTCTTGTC	TAATCCTGTC	CATCATCAAC	GACAACCATC	CTATCTTGAC	4980
CAAATGGGTC	CTTGAGTGTT	CGTACTCGCT	TTTCAGGAAG	ATGTTTCCTA	AAAAGTTCAG	5040
GAACACTTTG	ACCTTGCTTG	TATCCAATTT	CAAGGTAAAT	CTTACCACCA	TCTTTGAGAT	5100
AGTCTTTTGC	ATCTTCCGCA	ATTCTACGGT	AAATAGCTAG	GCCATCCTCA	TCTGCAAAGA	5160
GAGCTAGATG	AGGCTCCGAA	TACAAGACAT	TCAAGCCTAC	CTCTGACTCA	TCTTCACGAG	5220
AGATATAGGG	TGGATTGGAA	ACAATTATAT	CATATTTTTC	AGAAATTTCT	GTAAAACAGT	5280
CAGATTTTTT	TAAAAATATT	TGAAGATTTT	GATTTTTCAG	ATTTTCGCTA	GCTACATCTA	5340
AAGCATCTTG	GGAATATCT	GCTGCCGTCA	CTGACCAATC	TGGTCTGTTT	TTTGCTAGAG	5400
CGAGAGCAAT	AGCTCCACTA	CCTGTTCCGA	TATCTAGGAC	CATAAGATTT	TTACAGGAT	5460
TTTCAGCCAG	GATAAGCTCC	ACCAACTCCT	CTGTTTCTGG	ACGAGGAATC	AAAACCCGTT	5520
CATCCACCTT	TAAATGCATT	CCATAAAAAAT	CTGCCTGTCC	AATGATGTAC	TGAGCTGGCT	5580
TGTGAGCTGC	TAGTTGCTGG	TAAATATCTT	CTACAAATTG	TTTTTCTTCC	TCTGTTGTCA	5640
CCTCCTGCTG	GAGGGCAAAA	ATAAAGTCTG	TAAAGATAG	ATTTTTCAGA	CTACGATAGA	5700
CAAAAGAGAG	GCTTTCGCT	TCCTCTCCTT	GTCTTATCAA	CTCTTCTTCA	AAATTTGAAA	5760
ATAATTGAGC	TAATTCATT	ATTTGTTTAA	TTCTTCTAGT	TTTGTGTGTT	GGTCATAAAG	5820
CACCAAGGCA	TCCACAACCT	CGTCCAATTT	ACCAGACAAA	ATCGTATCTA	GTTTTTGAG	5880
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TTCTGAACGG	TCACCAGTAC	CGATTGTCGA	CTTACGCTCA	GCGTCCTGCT	CATCTTGAGC	6000
AATCTGAGCA	AAGTGGTCAG	CAACACGGGC	ACGGATGATT	TTCATGGCCT	TCTCACGGTT	6060

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CTTCTGCTGG	GTACGTTCTT	CCTGCATCTC	AACCTTGATA	TTGGTTGGCA	AGTGAACGAT	6120
ACGAACGGCA	GTCGCAACCT	TATTGACGTT	CTGTCCACCA	GCACCAGAGG	CGTGATAGAT	6180
GTCGACACGA	AGGTCTTTTG	GATCAATGTC	GTATTCAACC	TCTTCAACTT	CTGGCATAAC	6240
AAGAACTGTC	GCTGTCGAAG	TATGAACACG	GCCTTGGCTT	TCTGTCACAG	GAACACGTTG	6300
CACACGGTGG	GCACCTGATT	CATACTTAAG	CTTAGAGTAT	ACAGACTGAC	CTGAAACCAT	6360
AGCAACCACT	TCTTTAAAC	CACCGACACC	ATTCATAGAG	GCTTCCATGA	CTTCAAAGCG	6420
CCAACCTTGG	GCTTCCGCAT	ACTTTTGGTA	CATAGTTAGC	AAATCTCCAG	CGAAAAGTGC	6480
CGCTTCGTCT	CCACCAGCTG	CTCCACGGAT	TTCAAGGATG	ATATTCTTGT	CATCGTTTGG	6540
ATCCTTTGGA	AGGAGCAAAA	TTTTCAGTTT	TTCTTCATAT	TCTTCTTTTT	CAGCCTTGGC	6600
ATCTTTGAGT	TCTTGCTTGG	CCAATTCTTC	CAAGTCCGCA	TCTCCGCCTG	ATTCCTTAAT	6660
CATCTCTTCG	GCATCGACGA	TATTTTGAAG	GACTTGTTTA	TACTCACGGT	AGGCTATTAC	6720
GGTGTACGA	TTGGAAGCTT	CTTCTTTTGA	AAGCTCCATA	AAACGCTTGG	TGTCTGAAAC	6780
GACATCAGGG	TCACTCAGCA	ATTCTCCTAA	TTCTTCATAA	CGGTCTTCTA	CAACTGTAG	6840
TTGATCATAG	ATGTTCAATT	TTTCTCCTTA	TTTCTCAATT	GTTAAATCAT	AGATTGCTAC	6900
TACTTCATTC	TCGGATATTT	CCCCAGTTTC	TTTAAATCCA	TAAGTGGGTT	AACAAAATCT	6960
TGCCTGTTCA	TTTTCTGGTT	CATATGACAA	CCAAAGTTTA	TTGCTTAAAC	CTGCTGGCGC	7020
TGTCGAACA	TAGTCTAGTA	CTTTATCCAT	AATTGGTTTA	AAATATCCTT	GATTTTGAAA	7080
ATTCTTATCA	ATCATAAAAC	GAAATAGTAA	ATAATTTCCA	CTACTAATTC	CGATCTTTTT	7140
ATCATAAGCT	ATCATCACAA	AACCTATAAT	TGCATCATTA	TCATAAACTG	CCAATGGAGC	7200
TACAAAATCT	CCATTTTTAG	TGTAGACGTA	TGCTTCAGCT	AACTAATTG	CGTTGGTTGC	7260
AATGAATTGT	TTTGTATATT	CCTTGACATC	CAAATTTAAA	ACATCAAAAT	AATTTTCCAT	7320
TGTAACATCT	CTTAGTTCAA	TTGTCATAGT	TTTGCTCCTT	GTTAGAGGTT	ATCATTGGCG	7380
CAAAATAATG	TTTACGGCAA	ACTGAGATAT	AGGTTTCGTT	ACCACCAATC	TGGATCTGTT	7440
CTCCATCGTA	AACGGGCAGT	CCATCCTGTG	TTGCAACAC	CATGGTCGCC	TTTTTCTTGC	7500
AATACTGACA	GATGGTCTTG	ATTCGTCAA	TCTGTCTGC	TAAAAGCAAG	AGATATTTGG	7560
AACCTTCGAA	CAATTCATTG	CGAAAGTCAT	TTTCAAGCC	AAAAGCCATG	ACGGGTATGT	7620
CTAACTCGTC	CACAACACGA	GCTAGGTCGT	AAACATGGTG	GCGTTTGAGA	AACTGGGCTT	7680
CATCGACCAA	AACACAGTAA	GGTTTTTCTG	GTAGGTCTCG	GATATAGCCA	AAGATATCCG	7740
TTGTTTCCTC	AATCGCAAGG	GCAGGGCGTT	TCATGCCAAT	TCGACTCGAC	ACATAGCCAA	7800
CGCCGTCACG	CGTATCCAGA	GCCGAGGTCA	TAATCACAAC	ACCTTTTCCT	TGCTCCTCGT	7860

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AGTTATAGGC	CACTTTGAGA	ATCTCAATCG	TTTACCAGA	GTTTCATGGTC	CCATAACGAT	7920
AGTACAACG	TGCCATGTTT	CTTGCTTAC	GTCCATTCT	AAATTTTGC	TACATTCTAG	7980
TATATCATAA	TTTCTTAAG	CTTTAAACGG	CAAAATGTGG	TAAAATAGAA	GAAATCAAAA	8040
ACTAGTGGAG	GAAGCTATTA	TGCCATTGT	ACGCATCGAT	TTATTTGAAG	GACGCACGCT	8100
CGAGCAAAAG	AAAGCTCTTG	CTAAGGAAGT	AACGGAAGCA	GTTGTCCGCA	ACACTGGAGC	8160
CCCTCAATCT	GCTGTCCATG	TCATCATCAA	CGACATGCCA	GAAGGAACTT	ACTTCCCACA	8220
AGGGGAAAATG	CGTACTAAAT	AAGCTAGCTT	AAGCAGAATT	GCTTAGGCTT	TTTCAATCTC	8280
CAAGTAGCAT	TCATTGAAGA	AATATCCTAA	ATTGTGTACA	ATTGAAAAG	AAACTTGGAG	8340
AATTTCCAAG	AAAAGAGCTA	TTAATTAAAG	GAAACATTAT	GATTACACGT	GAATTTGATA	8400
CCATCGCTGC	TATCTCTACT	CCACTAGGTG	AAGGGGCTAT	TGGTATTGTC	CGCCTGAGCG	8460
gAACAGACAG	TTTGTCTATT	GCGCAAAAGA	TTTTTAAAGG	AAAAGACTTG	AACAAGGTTG	8520
CCAGCCACAC	TCTCAACTAC	GGTCACATTA	TTGATCCTCT	GACTGGTAAA	GTCATGGAGC	8580
AGGTATATGGT	TGGGGCTATG	AAGTCTCCAA	AGACCTTCAC	TCGTGAGGAT	ATTATCGAGA	8640
TTAACACCCA	CGGTGGGATT	GCGGTGACCA	ATGAAATCTCT	CCAGCTAGCT	ATTCGTGAAG	8700
GGGCTCGGTT	GGCAGAACCT	GGTGAATTTA	CCAAACGTGC	TTTTTTAAAC	GGTCGCGTAG	8760
ACTTGACACA	GGCAGAGGCT	GTGATGGATA	TCATCCGTGC	CAAGACTGAC	AAGGCCATGA	8820
ACATTGCGGT	CAAACAATTA	GACGGCTCCC	TTTCTGACCT	CATTAACAAT	ACCCGTCAAG	8880
AAATCCTCAA	TACACTTGCC	CAAGTTGAGG	TCAATATCGA	CTATCCTGAG	TATGACGATG	8940
TTGAGGAAGC	CACTACTGCT	GTGTCCGAG	AGAAGACAAT	GGAGTTTGAG	CAATTACTAA	9000
CCAAACTCCT	TAGGACAGCA	CGTCGTGGTA	AAATCCTTCG	TGAAGGAATT	TCAACGGCTA	9060
TCATTGGACG	TCCCAACGTT	GGGAAATCAA	GCCTTCTCAA	CAACCTCTTG	CGTGAGGACA	9120
AGGCTATCGT	AACAGATATC	GCTGGGACAA	CACGAGATGT	CATCGAAGAG	TACGTCAACA	9180
TCAATGGTGT	ACCTCTCAAA	TTGATTGATA	CAGCCGGTAT	TCGTGAAACG	GATGATATCG	9240
TTGAACAAAT	TGGAGTTGAG	CGTTCGAAAA	AAGCTCTTAA	GGAAGCTGAC	CTAGTTCTGC	9300
TAGTACTAAA	CGCTAGTGAA	CCACTAACCG	CCCAAGATCG	CCAACCTCCTA	GAAATCAGTC	9360
AGGAGACTAA	TCGCATTATT	CTTCTTAACA	AAACTGACCT	GCCTGAAACG	ATTGAAACTT	9420
CGGAACTACC	TGAAGATGTC	ATCCGCATTT	CAGTTCCTTA	AAATCAAAAC	ATCGATAAAA	9480
TCGAAGAGAG	AATCAACAAC	CTCTTCTTTG	AAAATGCTGG	TTTGGTTGAG	CAAGATGCTA	9540
CCTACTTGTC	AAACGCCCGT	CACATTTCCCT	TGATTGAGAA	GGCCGTTGAA	AGCCTACAAG	9600

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CTGTAAACCA AGGTCTTGAA CTAGGGATGC CAGTTGACTT GCTTCAAGTT GACTTGACCC	9660
GTACTTGGGA AATTCTAGGA GAAATCACTG GAGATGCTGC TCCAGATGAA CTCATCACCC	9720
AACTCTTTAG CCAATTCTGT TTAGGAAAAT AAGAAAAATC CATGATCCTT CATTCGGTCA	9780
TGGATTTTAG GTTCTATAAT ATTTGTAGTG GGTAAATCCA CTATAGATAT TATGGAGCCT	9840
ATTTTATTGT AGAAAAAAG TCCCATATGA CCTATAATGA AAAGCGACAA AACAACTCAT	9900
TAGAAAGAAT CATATGGAAC AATTACATTT TATCACAAAA TTACTAGACA TTAAAGACCC	9960
TAATATCCAG ATTTTAGACA TCATCAATAA GGATACACAC AAGGAAATCA TCGCCAAACT	10020
GGACTACGAC GCCCCATCTT GCCCTGAGTG CGGAAACCAA TTGAAGAAAT ATGACTTTCA	10080
AAAAACCTTC TAAAATTCCT TATCTTGAAA CGACTGGTAT GCCCACTAGA ATTCTCCTTA	10140
GAAAGCGTCG ATTCAAGTGC TATCACTGTT CAAAAATGAT GGTCGCTGAA ACTTCTATCG	10200
TCAAGAAGAA TCACCAATC CCTCGTATCA TCAACCAAAA GATTGCTCAA AAGTTAATTG	10260
AAAAGATTTC TATGACTGAT ATTGCCCATC AGCTTTCCAT CTCAACTTCA ACTGTTATTC	10320
GTAAGCTCAA TGACTTTCAC TTAAACATG ATTTTCTTG TCTTCCTGAG ATTATGCTTT	10380
GGGATGAGTA TGCTTTTACA AAAGGAAGA T	10411

## (2) INFORMATION FOR SEQ ID NO: 90:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2393 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 90:

GTTTTGGGTT CTGGAAATTA TCAGATGGTT GGAAAAGCCG TCCACATCAA GATAGTGTTT	60
GGAGATTAA GTTTAAATTG AAGAACTAA CACAGAGGAA ATGGAGTATA GACCTAACAA	120
GACGTATTGA GCAACTGAAT TTGTCTATTC GAGGATGGAT AACTATTGC TCATTGGGAA	180
ATATGAAAAG TATAGTCGCC AGCATAGATG AGCGCTTGCG TACTCGCCTA CGAGTGATTA	240
TCTGGAAGCA ATGGAAGAAG AAATCGAGAC GATTATGGGG ATTGCTTAAG TTAGGAGTTC	300
CTAAATGGAT AGCAGATAAG GTATCTGGCT GGGGCGACCA TTATCAATTA GTAGCTCAGA	360
AGTCGGTACT TAAACGTGCT ATATCAAAC CAGTCCTGGA AAAACGTGGA CTGGTTTCGT	420
GTTTGATTAA TTACCTTGAA CGACATGCGT TAAAAGTTAG TTGAACCGCC GTATGCCAAA	480
CGGCACGTAC GGTGGTGTGA GAGGGGCTAG AGATTATCCC CTA CTGATT AACTCCCCTG	540
AAATTTATTT TAATTATGCA AATTTACGT ATTTTGTATG CTGAGACGAC GATCCTGGGA	600

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ACTTTTCAGA TATTTTTTTG ACTATCTAAA TCTATCATTA GAAAAGCTTA GAGCGCCAAA	660
GGATTGAGC GTTTTCTGA TTTTAAAGAC TTTTCCAGT CTCTTTTTCG ATTGAAGATG	720
TAATTATTCT ACTAACTAAC TAACTTCTTA GTACTAGCCA ACAACGATAA TCATAATTCC	780
TCCTAAAATT AGGAATAATA AAGGCAATAG TTTTGTGTTT TTCATGTAAA AAACCTCACT	840
TTTGTGTTCT GCTATTTTAT GCTAAAATAT TAAAAATCAA ATTTAATTCC AAAGTTGTGA	900
ACTAAAGGGG GAGCGCTACA TGTCTAATTC ATTTGTCAAG TTGTTAGTCT CTCAATTATT	960
TGCAAATTTA GCAGATATTT TCTTTAGAGT AACAATCAT TCTAACATAT ACATTATTTT	1020
AAAATCAGTA ATTGCCACAT CACTAGTTCC TATCTTAATA GGAATATCCT CTTTGTGTTG	1080
GAGTCTTTTA GTTCCGTTGG TTAATAAAAG GTTAGCGCTA AATAGGGTTT TATCTTTATC	1140
TCAATTTGGA AAGACTATAT TATTGGCGAT ACTGGTAGGA ATGTTTACCG TAATGCAATC	1200
CGTAGCGCCT TTGGTGACCT ATCTATTTGT TGTGCAATT TCCATACTAG ATGGTTTGTG	1260
AGCACCCGTT TCCTATGCTA TTGTGCCACG CTATGCGACC GATTGCGGTA AGGCTAATTC	1320
AGCCTTATCA ATGACTGGTG AAGCTGTCA ATTGATAGGT TGGGGATTAG GTGGACTCTT	1380
GTTTGCAACA ATTGGTCTGT TACCTACCAC GTGTATCAAT TTAGTCTTGT ATATCATTTT	1440
TAGCTTTCTG ATGTTATTTT TCCCTAACGC TGAAGTGGAG GTGTTAGAGT CAGAACTAA	1500
TCTTGAAATT TTGCTCAAAG GTTGGAAGTT AGTTGCTAGA AATCCTAGAT TAAGACTTTT	1560
TGTATCAGCA AATTTATTGG AAATTTTTTC AAATACGATT TGGGTTTCTT CCATTATACT	1620
TGTTTTTGTA ACGGAGTTAT TAAATAAAAC GGAAAGTTAC TGGGGATATT CTAATACAGC	1680
ATACTCTATT GGTATTATAA TTAGTGGCTT AATTGCTTTT AGGCTATCTG AAAAGTTTCT	1740
TGCTGCTAAA TGGGAACCCC AATTATTAC CCCTAAATCTA AAAACCATCC AGAATCCTTG	1800
CCTTAGCTTA GATCCTGGAT GGTTTCTTTT TTCACCCAAT GGGTGTTTT TACTAGACAA	1860
AAAAGAGTTT CCCCTTTATG GTATAAGTGT AGAAAAAAC AAAAAAGAA AGGAAACTCA	1920
CATGAACAGT TTACCAAATC ATCACTTCCA AAACAAGTCT TTTTACCAAC TATCTTTTCA	1980
TGGAGGTCAT TTAACCCAGT ATGGTGGTCT TATCTTTTTT CAGGAACTTT TTTCCAGTT	2040
GAAACTAAAA GAGCGGATT CTAAGTATTT AGTAACGAAT GACCAACGCC GCTACTGTCTG	2100
TTATTTCGAT TCAGATATCC TTGTCCAGTT CCTCTTTCAA CTGTTAACAG GTTATGGAAC	2160
GGACTATGCT TGTAAGAAT TGTCAGCTGA TGCCTACTTT CAAAATTGT TGGAAGGAGG	2220
GCAGCTTGCT TCACAGCCAA CCTTATCCCG TTTTCTTTCC AGAACTGACG AGGAAACAGT	2280
CCATAGTTTG CGATGCCTCA ACCTTGAATT GGTGGAATTC TTTTACAGT TTCACCAGCT	2340

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AAACCAACTC ATTGTAGATA ACGATTCTAC CCATTTTACA ACTTATGGCA AGC

2393

(2) INFORMATION FOR SEQ ID NO: 91:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 4762 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 91:

TTTGTATCTT TTTAGGTCTC TTTCAATCCA AACCCCTTTAA ACTATACGTC ATTTCCGGTTC	60
CTGCAAGTCT TGTGGTAATT TTAGGTTTGA TTTTACTTTT CTTTTCACAA GAGCCTCTGC	120
ACGCTTCTTA TTTGATGGTC GTCTTCCCTG TTTTCCTACT TTTATTGGTA ACCAATATTA	180
AGAGTCAACA GAGGGGGCGT AGTGCTAGAA GAAGCCGAAG AGAAACGCCA TTATGCCTAT	240
GGAGTCGTTT CTTCAAAGGA AATCTATATC TGCTAGTTTT TGGGTTTGTC TATCTTTTGT	300
CTGTTCCCTT TTTGATGAAG TTTGTCCTTT ATCCAGTACC TTATCAAGAA CGTAATCGTC	360
TGCTGTGATT GGTAAAGAG GAGACAAATA CGGAAGATGC TATCTCATGC ATGGGATGAT	420
ACTGCGACTC TTTATCGTAA GAGTGAGCGC TTGTCCCATC GGCGATTTTG TCCCCGTGTC	480
ACTATACAGC AACTGAGGAA AATCGTAATA AGTTACTTAA TGACTTGAAA GAAAAACAAC	540
CTAAGGTGAT TGTGGTAAAT GATAAGGTGG TAGTCTGGTC TGAAGTGGA ACACCTCTTAA	600
AAGAAAATTA CCAACAAGTA AAGACTGATT ACTCAGAGTT TAAAGTCTAT AAAATTAAAT	660
AACCAAATCA ATATCTGTG TATTTTAA AATTTTAGGA TTTTAAACAC AAGATATGA	720
TTTTTCTTTT TAGAGTGGTA TAATACTTTT TAGAAAGAAC ATTTTAGAAA AGAGCATGCA	780
TATGATTGCA CTAGAAGAAA AAATTACAAT TTGCCAACT CTCTTCGTCG AGAAACGAGA	840
TGGGAGACGT GTTGTATTTG ATGTGGACAA GATTGACAAG GCTCTCCACA AGGCGGCTGA	900
CAAGGTATG GATGTGACAC CCCTGGTTGA AAAATGCCTC AATGATCTGA CTGAGCGAAT	960
TATTACAGAA ATTCATAGTC GCTTTCACA GGGAATTAAG ATTTACGAAA TTCAAAATAT	1020
CGTAGAACAT GAACCTCTTG AAGCCAAAGA ATATGCGCTG GCTGAGGAGT ATATTACTTA	1080
TCGGACACAG AGGGATTTTG AGCGCTCAAA AGCGACGGAT ATCAACTTTA GTATTCATAA	1140
ACTTCTCAAC AAAGACCAGA CAGTTGTCAA TGAAAACGCT AATAAGACA GTGATGTCTT	1200
TAACACTCAG CGTGATTGTA CAGCAGGGAT TGTTGGGAAA TCAATCGGAC TGCAAATGCT	1260
TCCTAAGCAC GTAGCCAATG CCCACCAAAA GGGGGATATC CACTATCACG ATTTGGACTA	1320
CAGTCCCTAT ACCCTATGA CCAACTGCTG TTTGATTGAT TTAAAGGGTA TGTTGGAAAA	1380

717

TGGTTTAAAG ATTGGAAATG CAGAGGTAGA GAGTCCCAAG TCTATCCAGA CTGCGACAGC	1440
ACAGATTCTCT CAAATCATTG CCAACGTTGC TTCTAGCCAG TACGGTGGCT GTTCAGCTGA	1500
CCGTATCGAT GAAATTTTGG CGCCTTATGC AGAGAAGAAT TATCAAAAAC ATCTCAAAGA	1560
TGCAGAAGAG TGGGTATTGC CTGAAAAACA GGAAGATTAC GCTTGGAAGA AAGCGCAAAA	1620
GGACATCTAC GATGCCATGC AATCTCTTGA GTATGAAATC AATACTCTCT TCACTTCAAA	1680
TGGACAAACA CCTTTTACTT CGTTAGGTTT TGGTCTGGGA ACCAGTCGTT TTGAACGAGA	1740
AATTCAAAAA GCTATTTTAA ACATTCGCAT CAAGGGTCTT GGTTCAGAAC ACCGTACGGC	1800
TATCTTTCCT AAACCTATCT TTACGCTTAA AAGAGGCCTC AACTTAGAGG AAGGAACTCC	1860
CAACTATGAC ATCAAGCAGT TGGCTCTAGA GTGTGCAACC AAGCGGATGT ATCCAGACGT	1920
CTTGCTTAT GATAAGATTG TTGATTGAC AGGTCTTTTC AAGGTGCCTA TGGGCTGCCG	1980
TTCTTTCCTT CAAGGGTGA AGGATGAAAA TGGTGTAGAA GTCAATTCAG GTCGCATGAA	2040
TCTGGGTGTT GTGACGGTTA ATCTGCCTCG TATTGCTCTT GAGTCTGAAG GTGATATGAA	2100
TAAGTCTGG GAAATCTTCA ACGAGCGAAT GAATATCGCA GAAGATGCTC TTGTTTACCG	2160
TGTCGAACGC ACTAAAGAGG CGACACCAGC GAATGCTCCT ATTCTTTATC AGTACGGTGC	2220
TTTTGGCCAT CGTCTAGGTA AAGAAGAAAG TGTTGACCAG CTCTTTAAGA ATCGTCGTGC	2280
GACCGTTTCG CTGGGCTATA TCGGCTTGTA TGAAGTAGCG ACAGTTTCTT TTGGTAACAG	2340
CTGGGAAAGT AATCCAGATG CTAAGGAATT CACGCTAGAC ATCATTCACG ATATGAAACG	2400
CCGTGTAGAA GAGTGGTCAG ACCAATATGG CTACCATTTC TCTATCTACT CAACACCATC	2460
CGAAAGTCTG ACAGACCGTT TCTGCCGACT AGATATAGAC AAGTTTGGCT CTATTCCTGA	2520
TATCACAGAC AAGGAATACT ACACCAACTC TTTCCACTAC GATGTTGTA AAAATCCAAC	2580
ACCGTTTGAA AAATTGGACT TTGAGAAAGT CTATCCGAA GCAGGTGCGT CAGGTGGTTT	2640
CATCCATTAT TGTGAGTATC CAGTCCTTCA GCAAAATCCA AAGGCCTTGG AAGCTGTCTG	2700
GGATTATGCT TATGACCGTG TAGGCTATCT AGGCACCAAT ACTCCGATTG ACCGTTGCTA	2760
CAAGTGTGAC TTTGAAGGGG ATTTTGAACC AACTGAGAGA GGGTTTGCTT GTCCAAACTG	2820
TGGCAATAGC GACCCTAAAA CAGTAGATGT GGTGAAACGA ACTTGTGGCT ACCTAGGTAA	2880
TCCTCAAGCA AGACCGATGG TCAACGGGCG TCACAAGGAA ATCGCTGCGC GTGTCAAACA	2940
TATGAATGGT TCAACGATTA AAATAGCTGG GCATCAAGTA ACAAATTAGA AAGAAATGAA	3000
ATGGGAAAAT ATCAACTAGA CGATAAGGGG CGCGCACAAG TGACCCGTTA TCACGAGAAA	3060
CACTCTAAAG GTGGAGCTGG TAAGAAAGAA CGCTTGCTTA GCTTCAGAGA ACAATTTTAA	3120

718

AACAGAACA AGAAAAATA AAAGTGAGAG CCAGCTCTCG CTTTCTCAT AGTGGGAGGT 3180  
 AAGGATGGAA TTACGCAGAC CAAGATTAGC GGATAAGAAA GCTGTTTATAG ATATGATGAC 3240  
 AGAGTTTGAA AAATTCAGT CGCCTCACGA CGGCGGTTC TGGGATACAG AGAACTTTGT 3300  
 GTATGAAGAC TGGTTAGAAA GCAATCAGGA ACAGGAAATG GGGATTAATC TGCCTGAAGG 3360  
 ATGGGTTTCT GCAATTCAGT TAGTGGCTTT TTCTGAGAAA GGTCAAGCAG TTGGATTCT 3420  
 TAATCTCCGG TTGCGCCTCA GTAACCTTCT ACTAGAAGAA GGTGGCCACA TTGGCTACTC 3480  
 CATTCGTCCA TCTGAAAGAG GCAAGGGTTA TGCAAAAGAG ACTCTCCGTC AGGGCTTGCA 3540  
 AGTTGCTAAG GAAAAGAACA TCAAGAAAGC TCTGGTGACC TGTAGTGTGA ATAATCCTGC 3600  
 TAGCAGAGCA GTCATTCTAG CAAATGGTGG AATATTTGAG GATGCTCGCA ATGGAGTCGA 3660  
 GCGTTATTGG ATAGAGGTAG CGAATGAATA ATCCAAAACC ACAAGAATGG AAAAGCGAGG 3720  
 AACTTAGTCA AGGTCGTATC ATTGACTACA AGGCCTTTAA CTTTGTGGAC GGCGAAGCG 3780  
 TGCGCAACTC TCTCTATGTA TCAGGCTGTA TGTTTCACTG CGAGGGATGT TATAATGTTG 3840  
 CGACTTGCTC TTTTAATGCT GGCATTCCCT ATACAGCAGA ATTAGAAGAG CAGATTATGG 3900  
 CAGACCTTGC CCAACCCTAT GTTCAAGGCT TGACTTTGCT GGGAGGGGAG CCTTTTCTCA 3960  
 ATACTGGGAT TCTCTTGCCA CTTGTTAAGC GGATTGCGAA GGAATTGCCA GACAAGGACA 4020  
 TCTGGTCCTG GACCGGCTAC ACTTGGGAAG AAATGATGTT GGAAACTCCA GATAAACTGG 4080  
 AATTCTTGTC ACTGATTGAC ATTCTTGTCG ATGGAAGATA TGATCGAACT AAGAGAAATC 4140  
 TTATGCTCCA GTTTCGAGGT TCATCTAACC AACGAATTAT CGATGTGCAA AAATCGCTCA 4200  
 AAAGTGGGCA AGTAGTGATT TGGGACAAGC TCAATGACGG AAAAGAAAGC TATGAACAGG 4260  
 TGAAGAGAGA ATGAAGAAAA AGGACTTAGT AGACCAACTA GTCTCAGAGA TCGAGACGGG 4320  
 GAAAGTCAGG AACTGGGAA TATACGGTCA TGGAGCTTCA GGTAAATCAA CCTTTGCACA 4380  
 GGAATTGTAC CAAGCTTTAG ATTCTACTAC AGTAAATTTG CTAGAGACAG ATCCTTATAT 4440  
 CACCTCAGGA CGCCATCTGG TAGTACCCAA GGACGCGCCG AATCAAAAGG TGACAGCCAG 4500  
 TCTGCCAGTG GCGCATGAAC TGGAGAGTTT GCAGAGAGAT ATCCTTGCTT GCAGGCGGGT 4560  
 ATGGATGTCT TGACAATTGA AGAACCTTGG AAGGCTAGTG AGGTCTTGTC TGGAGCCAAA 4620  
 CCAATTTTGA TTGTCGAAGG GATGTCTGTT GGCTTTCTAC CCAAGGAAGT CTTTGAAAAA 4680  
 ACCATCTGTT TCTACACGGA TGAGGAGACC GAATTAAAGC GACGCCCTGC TAGAGATACG 4740  
 ACTGTGAGAA ATCGCGATGC GG 4762

(2) INFORMATION FOR SEQ ID NO: 92:

(i) SEQUENCE CHARACTERISTICS:



719

(A) LENGTH: 3832 base pairs  
 (B) TYPE: nucleic acid  
 (C) STRANDEDNESS: double  
 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 92:

GATGCAGGTT TCGACCCACA TATTCCAGAA AATTACTTTA AAGATGATGA TGTTAATCAG	60
GTACCTTGTC TTTGTTGGTC TTCATCTGCA GCCCTCTTTT TCAGTAATTG GGTAGACCAT	120
GCGGTCTATC AGGAGACGCC TTTTGATTGG AGAAAGATAG AAGATGATGC ATCTGCATAT	180
GGGTATTTAT AAGAGGAATT ATGACATATT TAGACGCTTT TAAATCAGGT ACCTTGGTTT	240
TACCGAGTGC CCTGCTCTTG CATTTTAAGG AACTCTTTCC TTCTAGCGAC GATTTTCTGG	300
TTTGCCAATT TTTCTATTTG CAAAATACGA CAGGCTTAGA AGAAATGTCG CCAAGCCAGA	360
TTGCTGAAAG GATTGGCAAG GAAATTTTCG ATGTCAACCA GTCCATTTCT AATCTGACGG	420
AAAGGGGACT GCTCCAGTAT CGTACTATCG AATTAAATGG CGAAATTGAA TTGCTCTTTG	480
ATGCTAGTTT GGCCTTGGAA CGTTTGATG ACCTGTTTGG AGCAGTTCAT TCAAGTTCAG	540
ACCAGCTAAC ACCTCAAAAC CAGCTCAAGG ATTTGGTGGA AACCTTCCAG CAGGAGTTGG	600
GACGATTGTT GACGCCTTTT GAGATTGAGG ATTTGACCAA GACACTAAAG GAAGATGGAA	660
CCAGTGCTGA CTTGATTAAG GAGGCTCTTC GTGAAGCTGT TTTGAATGGA AAACCAAAC	720
GGAAGTACAT TCAGGCGATT TTGAGAAACT GGCGCCATGA AGGAATCAAG AGTGTGGCTC	780
AAATTGAGGC CAAGAGAGCA GAAAGAGAAG CAAGCAATCC TCAGTTGACA CAGGTATCTG	840
CAGATTTTAT AAATGCCATG GATCTCTGGA AGGATTAATC CATGCAAGTA GGCTTGAAAT	900
CCGAGTAAGA TTTGCAAGCT GTGTATAATT GTGATAGAAT AAATAGAAAA TAAATTGAAA	960
AAAGAGGTAT GTGAAATGTC ACGTAAACCA TTTATCGCTG GTAACCTGGAA AATGAACAAA	1020
AATCCAGAAG AAGCTAAAGC ATTCGTTGAA GCAGTTGCAT CAAAACCTCC TTCATCAGAT	1080
CTTGTTGAAG CAGGTATCGC TGCTCCAGCT CTTGATTTGA CAACTGTTCT TGCTGTTGCA	1140
AAAGGCTCAA ACCTTAAAGT TGCTGCTCAA AACTGCTACT TTGAAAATGC AGGTGCTTTC	1200
ACTGGTGAAA CTAGCCCACA AGTTTGTAAA GAAATCGGTA CTGACTACGT TGTATCGGT	1260
CACTCAGAAC GCCGTGACTA CTTCCATGAA ACTGATGAAG ATATCAACAA AAAAGCAAAA	1320
GCAATCTTTG CGAACGGTAT GCTTCCAATC ATCTGTTGTG GTGAATCACT TGAAACTTAC	1380
GAAGCTGTA AAGCTGCTGA ATTCGTAGGT GCTCAAGTAT CTGCTGCATT GGCTGGATTG	1440
ACTGCTGAAC AAGTTGCTGC CTCAGTTATC GCTTATGAGC CAATCTGGGC TATCGGTACT	1500

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GGTAAATCAG CTTACAAGA CGATGCACAA AAAATGTGTA AAGTTGTTCG TGACGTTGTA	1560
GCTGCTGACT TTGGTCAAGA AGTCGCAGAC AAAGTTCGTG TTCAATACGG TGTTCTGTT	1620
AAACCTGAAA ATGTTGCTTC ATACATGGCT TCCCCAGACG TTGACGGTGC CCTTGTAGGT	1680
GGTGCCTCAC TTGAAGCTGA AAGCTTCTTG GCTTGTCTTG ACTTTGTAAA ATAATCAGTA	1740
AGTAGCAAAA GCTAGGTGGA ACAGCATTCA GATGTCTGTT ACATTTTTTA TAGGAGAGAA	1800
AGATTGAAAA CAAAAATTGG ATTAGCAAGT ATCTGTTTAC TAGGCTTGGC AACTAGTCAT	1860
GTCGCTGCAA ATGAAACTGA AGTAGCAAAA ACTTCGCAGG ATACAACGAC AGCTTCAAGT	1920
AGTTCAGAGC AAAATCAGTC TTCTAATAAA ACGCAAACGA GCGCAGAAGT ACAGACTAAT	1980
GCTGCTGCCC ACTGGGATGG GGATTATTAT GTAAAGGATG ATGGTTCTAA AGCTCAAAGT	2040
GAATGGATTT TTGACAACCTA CTATAAGGCT TGGTTTTATA TTAATTCAGA TGGTCGTTAC	2100
TCGCAGAATG AATGGCATGG AAATTACTAC CTGAAATCAG GTGGATATAT GGGCCAAAAC	2160
GAGTGGATCT ATGACAGTAA TTACAAGAGT TGGTTTTATC TCAAGTCAGA TGGGGCTTAT	2220
GCTCATCAAG AATGGCAATT GATTGGAAAT AAGTGGTACT ACTTCAAGAA GTGGGGTTAC	2280
ATGGCTAAAA GCCAATGGCA AGGAAGTTAT TTCTTGAATG GTCAAGGAGC TATGATGCAA	2340
AATGAATGGC TCTATGATCC AGCCTATTCT GCTTATTTTT ATCTAAAATC CGATGGAATC	2400
TATGCTAACC AAGAGTGGCA AAAAGTGGGC GGCAAATGGT ACTATTTCAA GAAGTGGGGC	2460
TATATGGCTC GGAATGAGTG GCAAGGCAAC TACTATTTGA CTGGAAGTGG TGCCATGGCG	2520
ACTGACGAAG TGATTATGGA TGGTACTCGC TATATCTTTG CGGCCTCTGG TGAGCTCAAA	2580
GAAAAAAAAG ATTTGAATGT CGGCTGGGTT CACAGAGATG GTAAGCGCTA TTTCTTTAAT	2640
AATAGAGAAG AACAAGTGGG AACCGAACAT GCTAAGAAAG TCATTGATAT TAGTGAGCAC	2700
AATGGTCGTA TCAATGATTG GAAAAAGGTT ATTGATGAGA ACGAAGTGGG TGGTGTCTAT	2760
GTTCGTCTAG GTTATAGCGG TAAAGAAGAC AAGGAATTGG CGCATAACAT TAAGGAGTTA	2820
AACCGTCTGG GAATTCCTTA TGGTGTCTAT CTCTATACCT ATGCTGAAAA TGAGACCGAT	2880
GCTGAGAGTG ACGCTAAACA GACCATTGAA CTTATAAAGA AATACAATAT GAACCTGTCT	2940
TACCCTATCT ATTATGATGT TGAGAATTGG GAATATGTAA ATAAGAGCAA GAGAGCTCCA	3000
AGTGATACAG GCACTTGGGT TAAAATCATC AACAAGTACA TGGACACGAT GAAGCAGGCG	3060
GGTTATCAAA ATGTGTATGT CTATAGCTAT CGTAGTTTAT TACAGACGCG TTTAAAACAC	3120
CCAGATATTT TAAAACATGT AAAGTGGGTA GCGGCCTATA CGAATGCTTT AGAATGGGAA	3180
AACCTCATTT ATTCAGGAAA AAAAGGTTGG CAATATACCT CTTCTGAATA CATGAAAGGA	3240
ATCCAAGGGC GCGTAGATGT CAGCGTTTGG TATTAAGCGA TGATTTGAAA GAGGGATGTG	3300

721

ATAGTAGCAC CCTCTTTTTC TTTGTTTTAT GATAGTTCAT CCTCGAGTAA ATTCAAGTTC	3360
TTGCTCGGAA ATGAAGCTTA TATAGTAGAT TGAATATAGA CAAATACCTT GTGATTGGTA	3420
AAACATTTTA GAAATTCATT TACCTTTCCT AATCGACTTG GTTTCATCTT ATTTCAATCT	3480
ATTATAGTAT TGGGGAATTT CTTCAAACCA CATCAGCTTG GTCAGTTCCTA CCTGCGACCT	3540
CAAAACTTGT GCTTTGGTCA AGCTGGGTTT AGTTTCCTAG TTTGCTGATG GATTTCATT	3600
GACTATAAGC ATCCAACCCT CTTTTGTCT TCTAAAGAAT TCTTAAATTA TCAGTCTATT	3660
GCAACTTTTC TCATATAAGT TCTTTGTCTT GCTATTGGTT TTCCTTAGTA GTATACTAAG	3720
GTAGTAATCA TTAAGAAGTG GTTACAAAAA ATAATGAATG AGGTAAAGAA AATGGTAGAA	3780
TTGAAAAAAG AAGCAGTAAA AGACGTAACA TCATTGACAA AAGCAGCGCC GG	3832

(2) INFORMATION FOR SEQ ID NO: 93:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 10690 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 93:

TGAAAAAATC CTCATGAACC TGGCGCCAAT AGACAAAGTG CTTGTTTCCC TCACCTTCCT	60
TATAGGCATG GTCAGCTGAC ACTCGATTGA AGGTTTAAAC AGAAACCTTT GTAATTTCGA	120
CAATGCAGAC AGCCTGATTT TGAATATCTA AAATGACATC GAAGGTCCCT ACTTGGGGAA	180
GTGGTTCGTC TTCTAGCACA TAGAGGTCAT AGGCTGATGC TGTGCTGTC TTTTCTCCTT	240
TAAACACCAA ATCCGCTAAA AGGTCTGGTT CAACTCCAAA AGCCCAGGCA TCGATTTTCAT	300
CTCCGATCAA AGGATTGATT TGCTTGATTT TATTCCACAT TTCTTGCGGT ATCATGGGTG	360
CTCCTTTGTA ATTTTTTACT TTCTTCTTTT ATGTGTTTAA GATGATCTGG ATGGTCAATC	420
TCTAAATCAA AAATCTCTGG AATAGAACTG TAGTGGATAA TGCACTTGAT ACCCAACTGA	480
TTCAATTTTT GTATGAAAGA AGTATTCAGA TAGCCTGCTA CAGCAAAATC AATCTTGTTT	540
TTTCTTGCTT TATCCTGCAT ATCTCTTAGC ATATCTAACA TTATTGGACT TTCCATATCA	600
TGCCATTGAC TGTTTCTCAT AGTCGCAAAA ACAAAGGAAG TCAAATCATT CATTCCAACT	660
ACAATCTTTG AAATGCCCGT TTCCAGTATA CTAGATAAGT CAAAATACGC TGACGGTAAT	720
TCAATCATCG TTCCGACTTT CCCAGTAAAA CCCTGCTGAC GCAATACTGT AATAGCTTGT	780
TTAATTTGGT CGGCATCATT GACAAAAGGA AAGATAACAG ATAGATTGGG GTTGGTTTGA	840

722

TAAACTTCTG TAACGACATG TGCTTCAGCC TGAAATTCAT CCAAACACGC CAGTAAACGC	900
CTAGTTCCTC TATAGCCAAA CAAGGGATGC CCTTCGTCAA AAAACTCTTT AGTCCCCACT	960
AAACAATTGG CTTCTGTATT CGTTAATTCA GTAAAACGAT ACCAAACTTC CTTACCTAAG	1020
TAAAAGGAGC AAATAGTATC AAGATAATCT TTCACAAATT CCTGACAACT TTGTAATAGT	1080
ATATTTTGAT TGAGCTCTCT CAATAAGTAT TCCCCACGAA TCATGCCGAC GTGGTGAAAT	1140
AGTTGAGGAT AAATTTTTC AAGAATTTT TCGCCACTAA GGGCAAGTTG ATTTCTCATC	1200
ATTCACCTTC CAATTCATGT AAGAAGTCTT GTCCAGTTCT GGAAATCCTA ATAATTCAGA	1260
CTTAACCTTC AAGACTAATG GCGATGCATT TTCTTCTGTA ATCTCTTGAA TATCCATCCA	1320
AATATATCCA AGTGAATCAT TCGCACCATC AGACACAGCT TCCGAAATCG TAACTTGAGG	1380
TGCACTCTCA TTCATTTCAA CATCATACAA GGCTATGACA TGGTGAACCA TAAAATTTT	1440
TAACTCTTCC CTGACGAAAA CATCGTAGAT TCGAGGATTA GAGTAGCTTC TAACAGTAAA	1500
TCCCGTCTCT TCCATAACTT CTCTAGTCAG CGTTTCCGTC AGTCCTTCAC CAAGTTGCTG	1560
ACTGCCTCCA GGTAGATCAT ACCGATGTTG ATAAGGGCCT CTCGTTTTTT CAATGCAAAG	1620
TAACTTTCCA TTTTCAAAGC AAACACAGTA GACCCCAAAG TGATTTTGA TTCCATCCA	1680
ACTCCTCCTA CTTCAAAGAC CAGCCACCAT CTATTGTCAA GATTTGTCTT TGCATGGCGC	1740
TCGCTTTTCC ACTTGCTAAA AAAAGACTAA GCTCTGCTAT TTCCTCTGGC TCAATCCAGC	1800
GCTTGATTGG GGTTCACCTA GCCACCCAGT CAGCCAAACC ACCTGGTTCA AAATCCGCAG	1860
CGGTCATAGC TGTCTTGACT GCTCCTGGAG CGATACCAA GACCTGAATC CCAGCTTCAG	1920
CATAGTCTAG AGCCAACTGC TTGGTGAAGC CAGCCAAGGC ATGCTTGGAT GAAGTATAGG	1980
CGTGACCACC TCCACCTGCT AGGCTAGAAG CAATGGAACA CATATTGATG ATGATTCCTT	2040
TTTATTTTC CAGCATTGTG GTCAAATAAT ACCGAGTCAA CTCTACTGGA ATAATGTAGT	2100
TGATTTCAA AATCTCTTGA ATGTCCTGCG CCGTTTGTTC CAACAGTGGT TTGTAATCAT	2160
CCAAAACCTC AGCAGTATTA CACAAAACAT CCACCTGAGG GCACCAGTCA AAAATAGGTT	2220
CCAAGTCCAA GGTCAAATCT CTCTGTAAAA AGCGAAAATC ACCCTCTAAG AGTGGCTTTT	2280
CACCTTGCTC AACTCCATAA ACTTGATAGC CCTTCTCTAA AAAGAGGCGA GCTTGAGCCA	2340
ATCCGATCCC TGAACCTACT CCTGTAATGA GTACACGTTT AGTCATGCAC TTCTACCCAA	2400
TCCGTTGCCA AAACATCACA AACTGTCTGG CTCCACATGG AAAAACCTTC TCCTTCGCCA	2460
GAAACGTTGA TTAGGAAATA AGGTGTCATT TCAAGTGCAA GCCCATTTTG CTCGATGGTA	2520
TCAAAGAGTT GGACATAGTT TTCCGCACCT CCCCACCAG TTCGTACATA TTTTCTCTTA	2580
GCCTTTAACC CAGGCAGGAT CTCTTCAAAT GTCATGTTTT TCTCCTTAA TTCTACATTC	2640

723

TTCATTTAAT TATAGCAAAA AACCGCTTTA TACGGCTTTT TGAATGTGAG TTATTCAAAC	2700
CTGCTACTAC TTACGGCAAA TTATTCCTTG CAGCAAGATA AATTCATAC CATTCTTTTC	2760
TTGTAAAGCT AAAGTTTGCC GCTCGGCTAA CTTCTCTCAA GTGCTTAGGA TTTGTTGTAC	2820
CTACGACTGC CTGCATTTT GCTGGATAAC GCAATATCCA AGAAATGGCA ATAGTTGAAG	2880
AGGTACTCC ATATTTAATA GCTAAACGAT CAAGTACTTG ATTTAAAGCT TGAAATTTCT	2940
CATTCCAAC AAAATTCCTT TAAAAATACC CGAATTGTAA GACAGACCAT GCTTGAATGA	3000
CCACATCGTG TAATTGGCAA TATCAAAAA TGCTGCCATC TCGCATAGCT GCTTGACTAT	3060
CTTCCATATT AACATGAAAA GCTGATTCAA ATCCTGGAGT AAAAGCCGCA CTCAATTGTA	3120
GCTGATTAA AGCTAACGGC TGCTTGACAT CTTTTTTAAG CAACTCCATC ATCATAGGAT	3180
TTTGATTAGA AACTCCAAAA TCTCGAATT TACCTTGTTT ATAAAGGAGA TTAAAGGCTT	3240
CTGCTACTTG GTCAGATTCC ATCAAAGCAT CTGGTCGATG AAGGAGCAAG CTATCTAGAT	3300
GATCAATCTT CAATCTTTCG AAAATACCGT CTAATGATT TATAATATAG TCCTTAGAAA	3360
AATCAAAATA GGTAAATCTT TCAATGCGAA TGCCACATTT GGACTGAATC CACATCTTTT	3420
CTCTTAAATC TGGACGATTT TTTAGGACAA GACCTAACAG TTCTTCACAA CGACCACGAC	3480
CATAAATATC AGCCAAGTCG AAGGCATTGA TTCCAACAGA AAGTGCTGTT TCTACAAGCT	3540
CTTCAACTTC TTTTACAGAT TTATCTTTTA TTCTCATCAT TCCGAGAACA ATTTCTGATA	3600
ATTCTTTGTC ATCTTGACCA AGAGTTATGT ATCTCATCAA ATTTTCTCTC TTTAATTTCT	3660
AACATTCCTC CCTTCATTAT AACAAAAAAC CGCTTTGCAA CGACTTTTTC ACTATACTTC	3720
ACTCCATTTT ATCTTCTTAA ACCCACGGAA CAAGACAAAG ATTCCAATAA AGAGGACAGC	3780
TAAAGGAATA ACTTTTGTA GAAAAACAT TGAAATTTCC ATCCACTCAT AATAACGGAG	3840
CAGAGAACCC ACCACAAGAT GGGCAATAAT CATACTGACA AATGGACGAA AGACCGCTTC	3900
TTTCCAATTC CAAATACCGA TAACTAGCGA AATCGTAAAG ACAGACAAAC TATCCCAGGG	3960
AGCCGGAATA TAAAAGGCTC CTTCTTGTAT GAAGCTTGCC ATTCCTACAT ATCCTAAAAC	4020
AACTAGAAGA ACTATAGTCC CAACAACAAT GTAAGTGCCA ATTTTCATTT TAGGAGAATC	4080
TTGGACTAAA CTTCTTCGTA AAATTGTGGC CACAAGTCCA AATCCAATCA GAAAAATAAG	4140
AAGTTGCCCT AAAAATGTGA GCAAATTGAC TGTTAAGAGA GGACCTTTAG AAAAATCACT	4200
TAGTAGTTGA TAATAACGTA ATACCGCCAG GACAAGAATT GGCGTCAAAA GGGACTCTTT	4260
GATAGAACTG CGAGGTGCTC CCTTGAGAAT CTCTTTCATT ATTTTTTTAG GATTCTTACC	4320
TAGATAATCC TCTGCACTCA TGCCATCTCG TTCTGCTTCT GAGAAATCTA GCATCATCAA	4380

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ATAGATCTGC	TCTCTGAGAT	AGTCTTCATC	ATAGAGAAAT	CCAGCAAGAT	TAAAACTTTC	4440
CCACAACCTCC	TCAAAATACT	TTTGATTCTC	CTCAGAAAAAC	TCATGTAGCA	AAGCGCTTGT	4500
TTCTTCGTAA	TACTTCATTT	TCTTCATGGT	TTAACCCCCA	TTCTTAATCC	CTTCTACTTT	4560
TTGACTCAAA	TCGTCCCATT	GTTGCCAAAA	GACTGAGACA	CGCTCTTCTC	CTTCTTTCAT	4620
TAATGAAAAA	TACTTCCGAT	CTGGACCATC	TGGCGACGGG	CGCATGTCGC	CTCTTATCCA	4680
TTGATTTTTT	TCTAACTTTT	GCAACAAAGG	ATAAATAGTT	CCTGGAACGA	TAGTATCAAA	4740
TCCAGCCTCT	CGCAAAGTCT	GAACCAACTC	ATAACCATAC	CGCTCTTTTT	GACCAATCAT	4800
ATCCAAGACA	CAACCTTCAA	GAACACCTTT	TAATAGCTGA	GTTTCTTTCA	TCACTTCTCC	4860
CTTCTAATCT	ATTTTGTAAT	ACCTACTAGT	GACTTCACCT	ATAGTATATC	ACTTCTACAC	4920
TAGTTTGTA	AGCATAATAG	TTAATACTCT	TCGAAAATCT	CTTCAAACCA	CGTCAGCGTC	4980
GCCCTACCGT	ATGTATGGTT	ACTGACTTCG	TCAGTTTCAT	CTACAACCTC	AAAAACATGT	5040
TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	ACCTCAAAAC	AGTGTTTTGA	GCTGACTTCG	5100
TCAGTTTCAT	CTACAACCTC	AAAACAGTGT	TTTGAGCTGA	CTTCGTCAGT	TTCATCTACA	5160
ACCTCAAAAA	CATGTTTGA	GCTGACTTCG	TCAGTTTCGT	CTACAACCTC	AAAACAGTGT	5220
TTTGAGCAAC	CTGCGGCTAG	CTTCCTAGTT	TGCTCTTTGA	TTTTCATTGA	GTATAAATAA	5280
AAAAACAGAA	CTAGCCTGAA	CTAGTCCTGT	CTACTTTTAC	CCAATCACAC	TTCCATTTGG	5340
TACAGCTGGA	TCAACTGTGA	GAAGGGTTAA	TTTGCCATCA	TGTTTCAGCTG	AGAGAATCAT	5400
ACCCTGCGTG	ACATATTTTT	TCATCATTTT	ACGTGGTTTG	AGGTTAGCAA	CGATTGGAAC	5460
TTTCTTGCCG	ACCAATTCTT	GTTCAATTGG	ATAGTATTTT	GCAATTCCTG	AAAGAATCTG	5520
ACGATCTTCT	CCATCACCAG	CATCCAAGCG	GAATTGAAGC	AACTTATCTG	AACCTTCTAC	5580
TTTAGACACT	TCTTTGACTT	CTGCGACACG	GATTTCAACC	TTGTCAAAGT	CTTCAAACCTT	5640
GATTTTCATCC	TTGTTTAGTT	TGAGCTCAAC	TTCGTCCGGA	TTCCATTCTT	TTTCGACTGC	5700
TGGTTTATTG	CCTTCCATTT	GTTCCCTGAT	ATAGGCGATT	TCTTCTTCCA	TATTTAGACG	5760
TGGAAAGATA	GGTGTTCCTT	TGGCAACTAC	AGTCACATCT	GCTGGGAAGT	CAGCCAAACT	5820
CAAGTTTTC	AGACTAGAAA	CTTCTTCCAA	ACCAAGTTGA	GTCAAAACTG	CACGACTAGT	5880
TTCCATCATA	AATGGTTCAA	TCAAGTGAGC	AACTACACGA	ATGCTGGCTG	CCAAGTGGCT	5940
CATGACACTT	GCCAATTGGT	CACGAAGAGC	TTCATCCTTG	GCCAAGACCC	ATGGTGCGGT	6000
CTCATCGATG	TATTTATTGG	TACGAGAGAT	CAGAGTCCAG	ACTGCTTCAA	GCGCAGCTGG	6060
ATAGTCAACT	GCTTCCATGT	GTGTATGGAA	GTCTGCGATT	GATTGTWCTG	CAACCTCAGC	6120
AAGAACATGA	TCATATTTCAG	TCACACCTTC	TACATAGGCA	GGGATTGTGC	CATCAAAGTA	6180

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CTTATTAATC ATGGAAACCG TACGGTTAAG GAGGTTCCCA AGGTCATTAG CCAATTCATA	6240
GTTGATACGG CCGACATAGT CTTCAGGAGT AAAGGTTCCG TCTGAACCAA CTGGAAGGTT	6300
ACGCATGAGG TAGTAACGAA GTGGATCTAG TCCATAACGC TCTACCAACA TTTCAGGGTA	6360
AACGACATTC CCTTTTGACT TAGACATTTT TCCGTCTTTC ATGACAAAACC AACCATGGGC	6420
AATCAAACGA TCAGGTAATT TAACATCCAA CATCATAAGA AGGATTGGCC AGTAGATAGA	6480
GTGGAAGCGA AGGATATCTT TTCCTACCAT ATGGAAGACT GTTCCATTCC AGAACTTGTC	6540
AAAGTTACCA TGTTCGTCTT GAGCGTAGCC AAGAGCTGTC GCATAGTTAA GAAGGGCATC	6600
AATCCAAACG TAGACAACGT GTTTTGGATT TGATGGGACA GGCACCTCCC ATGTAAAGGT	6660
TGTACGAGAT ACCGCCAAAT CTTCOAAGCC TGGCTCGATG AAGTTGCGTA GCATTTTCATT	6720
AAGGCGACCA TCTGGCGTGA TAAATTCAGG ATGAGCTTTG AAAAATTCGA CCAAACGGTC	6780
TTGGTATTTG CTAAGGCGAA GGAAGTATGA TTCTTCAGAA ACCCATTCOA CCTCATGACC	6840
TGATGGAGCA ATACCACCAG TCACATTTCC AGCTTCATCA CGGAAACTT CTGCCAGCTG	6900
GCTTTCTGTA AAGAATCTT CGTCTGATAC TGAATACCAA CCAGAGTATT CACCCAAGTA	6960
GATATCATCT TGAGCAAGTA AGCGTTCAAA GACTTGTCG ACAAATTTT CATGGTAGTC	7020
ATCAGTTGTA CGGATAAATT TATCGTATGA GATATCTAGT AATTGCCAGA GTTCTTTAAC	7080
TCCAACCGCC ATTCCATCAA CATAGGCTTG AGGTGTAATA CCAGCTTCTT CCGCTTTCTG	7140
CTGGATTTTC TGACCATGTT CATCAAGACC TGTCAGATAA AATACATCGT AGCCCATCAG	7200
GCGTTTGTA CGTGCTAGGA CATCACATGC GATAGTTGTG TAGGCAGAAC CGATATGAAG	7260
TTTCCCAGAT GGATAGTAAA TCGGCGTTGT AATATAAAAA TTTTTTTCAG ACATAATTTT	7320
TCCTTTCCAG GCAAATGAAA CCTGTTTTC TAACACTTCA TTATATCACA TTTTAAATGA	7380
ATTTCAATAG GGAAATCCAT AAAAAACAA GATAGACGAG TGTCATCTT GTTGATCTCA	7440
TTCATAACGA AGGGCTTCAA TTGGATCAAG TTTCGATGCC TTGTTGGCTG GCAAGACTCC	7500
AAAAATCATA CCAACTAG CCGAACTGC AAGACTAAAT AGGGCGACTG GGATTGATAC	7560
TCCAACCTCT ATACCTCTA TTAAACCTTG CAGTAACAAA CCTGCTAAGg CAGTTAAACC	7620
ACTTGCAATT GTCAAGCCAA TTAAGCCACC TAACAAGGTC AAAATCATGG ATTCAATCAA	7680
AAACTGAATT AAAATATTGG CACGTGTTGC ACCCAAAGCC TTACGAAGAC CAATCTCACG	7740
AGTGCGCTCT GTCACCGAAA CCAGCATGAT GTTCATGACA CCAGTTCCTC CAACAAAGAG	7800
AGAAATCCCT GCGATGGAAC TAATAATCGT CGTCATAAAA CTAAACGATT GTTGAATTC	7860
TGCAAATACA ACGGACTCAT CTGCCACCTG GTATTCTCCC TGTGTAAGC CTGCAAGCTC	7920

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TGTCATTTTT	CGTGCCAGTT	CTGGACCCAG	AGTTGGGGTT	AAACTGGTAT	CATTCACTCG 7980
AAAGACAATA	TTAGCTATTT	CATCTACATT	AAAATTTCGA	GCAAGGGAGA	TATTGGTAGT 8040
AATAGGCAAG	CCACCAAACC	CATATATTTT	TGATCTTTTA	GCCTCCGGAC	TAGTATAAAC 8100
CCCAATGACC	CGGTAACATA	ATCCATTGAC	TTCTACAACC	TTGTTAATAG	CCTCTTGAGG 8160
AGATTCAAAT	AAACTAATGG	ACAATTCCTC	ATCTAGCAAA	ATGACACTTG	CAAACCTCTT 8220
GAAATCTTGC	TCTCTCAGAC	TACGACCTGC	AATAATTTC	TTCTTAACAG	CGTCCATGTA 8280
AGTTCTGTTT	CCACCTGTCA	AATTAGCATT	CTCAACCTTT	TTATCTTGAT	AGGTCAAGAT 8340
GGCATTCGTT	GAATTGGTTA	CATAGTAACT	ATCCACTCCC	TTCAGTTTAG	CTGCCCTCTG 8400
GACCCAGGAT	TCTTGCGGTT	TTGGCGGTTC	AACAGGAACT	TCCTCTTCCT	TTCCAGAAAC 8460
CGTAAAAGCT	GATTGTTTCT	GAGTAAAAGA	CCCGTCTTTA	CTTTTTTTAG	GAGAGAAAAA 8520
GACGCTAATA	TTTTTCTGAG	ATTTAGTCAT	ATCTTTTATG	ACTTGACGAG	ATAGGGAATC 8580
ACCCAAAGCC	ATAATCACAA	CAACTGATGA	AACACCGATA	ATAATCCCAA	TCATAGTAAG 8640
CAAAGAACGC	ATCTTGTGAG	CCATGATAGA	TGAAAAGGCA	AATTTTCAGAT	TCTGCATCTT 8700
AGTTTTCTCT	CTTTCCTAAC	TGAGCACTGT	CAGACGAAAT	GACCCCATCC	CGAATGACAA 8760
TCTGACGTTT	GGCATAGGCA	GCAATCTCAG	GCTCATGCGT	TACCATGATA	ATGGTTTTTC 8820
CTTCTTTATT	CAAATCAACC	AATAATTGCA	TAATTTGGTT	ACCTGTTTTG	GTATCCAAGG 8880
CTCCTGTCGG	TTCATCCGCT	AGGATAATAG	AAGGATTGTT	TACCAAGGCA	CGCGCAATGG 8940
CTACACGTTG	CTTTTGACCA	CCAGATAATT	CTGAAGGTAA	ATGGTGACTA	CGTTCTGTCA 9000
ATTCAACCTT	GTCTAAATAT	TCCTCAGCCA	ACTTGCGACG	TTTTGAAGAC	GAAACTCCTG 9060
CGTAAATCAA	GGGCAATTCT	ACATTTTGCA	GAGCATTGAG	CTTCGATAGA	AGAAAGAACT 9120
GCTGAAAGAC	AAAACCGATT	TGTTGGTTAC	GGACCTTAGC	TAGTTGTTTT	TCACCAAGCC 9180
CAGCCACTTC	TTGACCTTCA	AGATAATATT	CTCCACTGGT	TGGTGTATCC	AACATGCCAA 9240
TCGTATTTCAT	CAGAGTGGAC	TTACCAGACC	CAGATGGTCC	CATGATGGCT	ACAAATTCAC 9300
CCTCATTCAC	TTCTAGATTG	ATATTTTGA	GAACCTGCAG	TTCTTGGTCA	CCATTACGGT 9360
AACTTCTGAA	GATATTTTTT	AGACTAATTA	GTTGCTTCAT	CAGCCTTCAC	CTCTTTTCCT 9420
TCTTCCAAGG	AAGATGTTGG	ATTACTGATG	ACCTTAGCAC	CGTTCGTTAA	ACCAGAAGTG 9480
ATTTCTTGAT	TTTCTGCGTC	AGCATTTCCC	AATGAAACCT	CAACTTTTTT	AGCCTTTTGT 9540
TGTTTCATCCA	CAATCCAGAC	ATAATTTTGA	CTATCATCCA	TTACTAGACT	GCTAACAGGA 9600
ACAAGAATAG	CCTTAGTTTT	GCTTTTAAAC	TCAATGTTGA	CAGAAAAACC	TTGTTTCAAA 9660
TCACCAACCT	CGCCTGTCAC	ATCAATAGTA	TAAGGGTATT	TAGAACCTGT	ATTATTTCCC 9720



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GCTGCTGGAC TAGCTGCTTC ACCATTGTTT TTAGGATAGT CAGAAATATA GCTTAATTTTC	9780
CCAGTCCATT TTTTATCAGG ATACACTTTA GAAGTAAAGC TTACTTCTTG ACCTACAGAA	9840
AGGTTGGCTA GATTGTACTC AGACAATTCT CCCTTGACTT GTAAATTTTC ATTGCTGACA	9900
ATATGAACCA TAACTTGACT CGCCCCTGTT GGAGATTTAG AAACATTGCT ATTGACTTCG	9960
ACCACAGTTC CCTCTAGGGT ACTGAGAACA GTTGTGTCAT CCAATTGACT TTGAGCCTTG	10020
CTTAATTGCG CCGCAGCATC TGCACGCGCA TCACGGGCAT CACCCAATTG AGCGTCAATA	10080
GAAGCAACAG AATTTCCAGC CACTGGAGTT GGGCTTTGCA CCGTTGCATC TTCCTCTCCT	10140
ACTGGCGCTG GTAAGTGTGG AGCCGGAGCT GAAGCGGCTT CATTTCGTGC TTGATTGAGT	10200
TCATTGATAT GACGATCTGC CCTAGCTACT GCTCGACTAG CTGAATCATA GGCCGCCTGC	10260
GCTTCTGAAC TACTGTACTT GACTAAAGCC TGCCCTTCGC TGACCTTATC GCCCACAGAA	10320
ACAAGGATTT CATCTAAATC ACCCTTACTA GCATCAAAAT AAACATATTG TTCATTTTTT	10380
GCTGTTACTG TCCTTGACAA TAAACAGAG GAGGCCACGC TTCCTTCCTT GGCAACAACA	10440
AGATGAGTAG GCTCATCTTT TAGAGCAGTC TGAGAAGGTT GTCTAAAGAG TAAATCCCC	10500
CCAGCACCCA ATACAATAC ACTCGCAGCA CCGATTGCTG CATAAGTTG CCACTTTTTA	10560
GCTTTACCAT TCTTTTCTT CATAATGAAA CTCCTTTTCT TTTTACAAT ACTTTGCTAT	10620
TATACCAAAT TTCCTCCAG CAAACAATAC AGTTCAGGAT TAAACAATCG TTCGGAATTT	10680
TGCTTTTCGG	10690

(2) INFORMATION FOR SEQ ID NO: 94:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8195 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 94:

GAGAAAGCGC CCACGTTTCC CCGAAGGGAG AAAGGCGGAC AGGTATCCGG TAAGCGGCCA	60
GGGTCGGAAC AGGAGAGCGC AACGAGGGAG CTTCACAGGG GGAAACGCCT GGTATCTTTA	120
TAGTCCTGTC GGGTTTCGCC ACCTCTGACT TGAGCGTCGA TTTTGTGAT GCTCGTCAGG	180
GGGGCGGAGC CTATGGAAAA ACGCCAGCAA CGGGCCCTTT TTACGGTTCC TGGCCTTTTG	240
CTGGCCTTTT GCTCACATGT TCTTTCCTGC GTTATCCCTT GATTCTGTGG ATAACCGTAT	300
TACCGCCTTT GAGTGAGCTG ATACCGCTCG CCGCAGCCGA ACGACCGAGC GCAGCGAGTC	360

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AGTGAGCGAG GAAGCGGAAG AGCGCCCAAT ACGCAAACCG CCTCTCCCCG CGCGTTGGCC	420
GATTCATTAA TGCAGCTGGC ACGACAGGTT TCCCGACTGG AAAGCGGGCA GTGAGCGCAA	480
CGCAATTAAT GTGAGTTAGC TCACTCATTA GGCACCCAG GCTTTACACT TTATGCTTCC	540
GGCTCGTATG TTGTGTGGAA TTGTGAGCGG ATAACAATTT CACACAGGAA ACAGCTATGA	600
CaTGATTACG AATTTCGAGCT CGGTACCCGG AAAATCCAGA AAATGCTTGA AAAAAATCCT	660
AGAAGATGGT ATAATACTAA ATTGTAAGGG TTATCACATA TAACTCAAAA AAAGAAAGAA	720
CAAAAGGAGA GTCAAACATAT GGCTTCTAAA GATTTCCACG TAGTGGCAGA AACAGGTATT	780
CACGCACGTC CAGCAACATT GTTGGTACAA ACTGCTAGCA AATTGCTTTC AGATATCACT	840
CTTGAGTACA AAGGTAAATC AGTTAACCTT AAATCAATTA TGGGTGTTAT GAGTCTTGGT	900
GTGCGCCAAG GTGCTGACGT AACTATCTCA GCTGAAGGTG CAGATGCAGA TGACGCTATC	960
GCTGCAATCT CAGAAACAAT GGAAAAAGAA GGATTGGCAT AAGGGAAATG ACAGAAATGC	1020
TTAAAGGAAT CGCAGCATCT GACGGTGTG CAGTTGCAAA AGCATATCTA CTCGTTTCAGC	1080
CGGATTTGTC ATTTGAGACT ATTACAGTCG AAGATACAAA CGCAGAAGAA GCTCGCCTTG	1140
ATGCCGCTCT ACAGGCATCA CAAGACGAGC TTTCTGTTAT TCGCGAGAAA GCAGTAGGTA	1200
CGCTCGGTGA AGAAGCAGCT CAAGTTTTTG ATGCTCACTT AATGGTTCTT GCTGACCCAG	1260
AAATGATCAG CCAAATCAAG GAACTATCC GTGCGAAGAA AGTGAATGCA GAAGCAGGTC	1320
TGAAAGAAGT TACAGATATG TTTATCACTA TCTTTGAAGG CATGGAAGAC AACCCATACA	1380
TGCAAGAACG CGCAGcGGAT WTCCGCGACG TGACAAAACG TGTATTGGCA AACCTTCTTG	1440
GTAAAAAATT GCCAAACCCA GCTTCTATCA ATGAAGAAGT GATTGTGATT GCGCATGACT	1500
TGACTCCTTC AGATACAGCT CAATTGGACA AAAACTTTGT AAAAGCTTTT GTAACCAACA	1560
TTGGTGGACG TACAAGCCAC TCAGCTATCA TGGCACGTAC ACTTGAAATT GCTGCTGTAT	1620
TAGGTACAAA TAACATCACT GAAATCGTTA AAGACGGTGA CATCCTTGCT GTTAACGGGA	1680
TCACTGGAGA AGTGATTATC AACCCAACAG ATGAACAAGC GGCAGAATTT AAAGCAGCTG	1740
GTGAAGCCTA TGCGAACAA AAAGCTGAAT GGGCACTTTT GAAAGATGCT CAAACAGTGA	1800
CTGCTGACGG TAAACACTTC GAGTTGGCTG CTAATATCGG TACTCCAAA GACGTTGAAG	1860
GTGTTAACAA CAACGGTGCA GAAGCTGTTG GACTTTACCG TACAGAGTTC TTGTACATGG	1920
ATTCTCAAGA CTTCCTCACT GAAGATGAGC AGTATGAAGC ATACAAGGCT GTTCTTGAAG	1980
GAATGAACGG TAAACCTGTT GTCGTTCTGTA CAATGGATAT CGGTGGAGAT AAGGAACTTC	2040
CTTACTTCGA TATGCCTCAC GAAATGAACC CATTCCTTGG ATTCCGTGCT CTTCGTATCT	2100
CTATCTCTGA GACTGGAGAT GCTATGTTCC GCACACAAAT CCGTGCTCTT CTTCGTGCGT	2160

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CTGTTACGG	TCAATTGCGT	ATCATGTTCC	CAATGGTTGC	GCTCTTGAAA	GAATCCGTG	2220
CAGCGAAAGC	AGTCTTTGAT	GAAGAAAAAG	CAAACCTTCT	TGCTGAAGGT	GTTGCAGTTG	2280
CGGATAACAT	CCAAGTTGGT	ATCATGATCG	AGATTCTCGC	AGCGGCTATG	CTTGCAGACC	2340
AATTTGCTAA	AGAAGTTGAC	TTCTTCTCAA	TTGGTACAAA	CGACTTGATC	CAATATACAA	2400
TGGCAGCAGA	CCGTATGAAC	GAACAAGTTT	CATACCTTTA	CCAACCATAC	AACCCATCAA	2460
TCCTACGCTT	GATTAACAAT	GTGATCAAAG	CAGCTCACGC	TGAAGGTAAA	TGGGCTGGTA	2520
TGTGTGGTGA	GATGGCTGGT	GACCAACAAG	CTGTTCCACT	TCTTGTGCGA	ATGGGCTTGG	2580
ATGAGTTCTC	TATGTCAGCA	ACATCTGTAC	TTCGTACACG	CAGCTTGATG	AAGAACTCG	2640
ACACAGCTAA	GATGGAAGAG	TACGCAAACC	GTGCCCTTAC	AGAATGCTCA	ACAATGGAAG	2700
AAGTTCTTGA	ACTTCAAAAA	GAATACGTTA	ATTTTGTATTA	ATCGAAAAGT	CCCTGCAACT	2760
CAGTTACAGG	GATTTTTTTG	ATATTTTAAA	AAGAATTTTC	AAGAAAATCT	TTCTTATAGA	2820
AAGTCCAACC	TTGAAAAAGT	AGTGGTCAGA	ACAAAAAATA	CTTAAATGGT	TCATAAAATT	2880
CTTGACAAGT	TGGATATTTA	GGAGTAAACT	ATTAACCACT	TAAGTAATAG	AGAGGAGTTT	2940
CTGCAATTTA	GAAATGAATT	GCAACTAGAA	ATATCAAATA	GAAAGAGAGT	TTCGATGAAA	3000
ATTAATAAGA	AATACCTTGT	TGGTTCTGCG	GCACTTTGAT	TTTAAGTGTT	TGTTCTTACG	3060
AGTTGGGACT	GTATCAAGCT	AGAACGGTTA	AGGAAAAATA	TCGTGTTTCC	TATATAGATG	3120
GAAACAAGC	GACGCAAAAA	ACGGAGAATT	TGACTCCTGA	TGAGGTAGC	AAGCGTGAAG	3180
GAATCAATGC	TGAGCAAATC	GTCATCAAGA	TAACAGACCA	AGGCTATGTC	ACTTCACATG	3240
GCGACCACTA	TCATTATTAC	AATGGTAAGG	TTCCTTATGA	CGCTATCATC	AGTGAAGAAT	3300
TACTCATGAA	AGATCCAAAC	TATAAGCTAA	AAGATGAGGA	TATTGTTAAT	GAGGTCAAGG	3360
GTGGATATGT	TATCAAGGTA	GATGGAAAAT	ACTATGTTTA	CCTTAAGGAT	GCTGCCACG	3420
CGGATAACGT	CCGTACAAAA	GAGGAAATCA	ATCGACAAAA	ACAAGAGCAT	AGTCAACATC	3480
GTGAAGGTGG	AACTCCAAGA	AACGATGGTG	CTGTTGCCTT	GGCACGTTTCG	CAAGGACGCT	3540
ATACTACAGA	TGATGGTTAT	ATCTTTAATG	CTTCTGATAT	CATAGAGGAT	ACTGGTGATG	3600
CTTATATCGT	TCCTCATGGA	GATCATTACC	ATTACATTCC	TAAGAATGAG	TTATCAGCTA	3660
GCGAGTTGGC	TGCTGCAGAA	GCCTTCCTAT	CTGGTCGAGG	AAATCTGTCA	AATTCAAGAA	3720
CCTATCGCCG	ACAAAATAGC	GATAACACTT	CAAGAACAAA	CTGGGTACCT	TCTGTAAGCA	3780
ATCCAGGAAC	TACAAATACT	AACACAAGCA	ACAACAGCAA	CACTAACAGT	CAAGCAAGTC	3840
AAAGTAATGA	CATTGATAGT	CTCTTGAAAC	AGCTCTACAA	ACTGCCTTTG	AGTCAACGAC	3900

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ATGTAGAATC TGATGGCCTT GTCTTTGATC CAGCACAAAT CACAAGTCGA ACAGCTAGAG	3960
GTGTTGCAGT GCCACACGGA GATCATTACC ACTTCATCCC TTACTCTCAA ATGTCTGAAT	4020
TGGAAGAACG AATCGCTCGT ATTATTCCCC TTCGTTATCG TTCAAACCAT TGGGTACCAG	4080
ATTCAAGGCC AGAACAACCA AGTCCACAAC CGACTCCGGA ACCTAGTCCA GGCCCGCAAC	4140
CTGCACCAAA TCTTAAATA GACTCAAATT CTTCTTTGGT TAGTCAGCTG GTACGAAAAG	4200
TTGGGGAAGG ATATGTATTC GAAGAAAAGG GCATCTCTCG TTATGTC'TTT GCGAAAGATT	4260
TACCATCTGA AACTGTTAAA AATCTTGAAA GCAAGTTATC AAAACAAGAG AGTGTTTCAC	4320
ACACTTTAAC TGCTAAAAAA GAAATGTTG CTCCTCGTGA CCAAGAATTT TATGATAAAG	4380
CATATAATCT GTTAACTGAG GCTCATAAAG CCTTGTTTGA AAATAAGGGT CGTAATTCTG	4440
ATTTCCAAGC CTTAGACAAA TTATTAGAAC GCTTGAATGA TGAATCGACT AATAAAGAAA	4500
AATTGGTAGA TGATTTATTTG GCATTCCTAG CACCAATTAC CCATCCAGAG CGACTTGGCA	4560
AACCAAATTC TCAAATTGAG TATACTGAAG ACGAAGTTCG TATTGCTCAA TTAGCTGATA	4620
AGTATACAAC GTCAGATGGT TACATTTTGG ATGAACATGA TATAATCAGT GATGAAGGAG	4680
ATGCATATGT AACGCCTCAT ATGGGCCATA GTCACTGGAT TGGAAAAGAT AGCCTTTCTG	4740
ATAAGGAAAA AGTTGCAGCT CAAGCCTATA CTAAAGAAAA AGGTATCCTA CCTCCATCTC	4800
CAGACGCAGA TGTTAAAGCA AATCCAAC TGAGATAGTGC AGCAGCTATT TACAATCGTG	4860
TGAAAGGGGA AAAACGAATT CCACTCGTTC GACTTCCATA TATGGTTGAG CATAAGTTG	4920
AGGTAAAAAA CGGTAATTTG ATTATTCCTC ATAAGGATCA TTACCATAAT ATTAAATTTG	4980
CTTGGTTTGA TGATCACACA TACAAAGCTC CAAATGGCTA TACCTTGGA GATTTGTTG	5040
CGACGATTAA GTACTACGTA GAACACCCTG ACGAACGTCC ACATTCTAAT GATGGATGGG	5100
GCAATGCCAG TGAGCATGTG TTAGGCAAGA AAGACCACAG TGAAGATCCA AATAAGAACT	5160
TCAAAGCGGA TGAAGAGCCA GTAGAGGAAA CACCTGCTGA GCCAGAAGTC CCTCAAGTAG	5220
AGACTGAAAA AGTAGAAGCC CAACTCAAAG AAGCAGAAGT TTGCTTGCG AAAGTAACGG	5280
ATTCTAGTCT GAAAGCCAAT GCAACAGAAA CTCTAGCTGG TTTACGAAAT AATTTGACTC	5340
TTCAAATTAT GGATAACAAT AGTATCATGG CAGAAGCAGA AAAATTACTT GCGTTGTTAA	5400
AAGGAAGTAA TCCTTCATCT GTAAGTAAGG AAAAAATAAA CTAATGAAAA ATGAAAGTCT	5460
CGATAAAGAG GCTTTCATTT TTATTATGTA TATATGTAAA ATTCTTGACA AGCAATATTA	5520
AAAAGAGTAA ACTATTAACT AGTTAATTAA CCGGTTTATT ACTTTATAGT GAATCAAATA	5580
TACTTAAGAA AAGAGGAAAG AATGAAAATT AATAAAAAAT ATCTAGCAGG TTCAGTGGCA	5640
GTCTTGCCCC TAAGTGTTTG TTCCTATGAA CTTGGTCGTC ACCAAGCTGG TCAGGTTAAG	5700

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AAAGAGTCTA ATCGAGTTkC TTATATAGAT GGTGATCAGG CTGGTCAAAA GGCAGAAAAC	5760
TTGACACCAG ATGAAGTCAG TAAGAGGGAG GGGATCAACG CCGAACAAAT CGTCATCAAG	5820
ATTACGGATC AAGGTTATGT GACCTCTCAT GGAGACCATT ATCATTAATA TAATGGCAAG	5880
GTCCCTTATG ATGCCATCAT CAGTGAAGAG CTCCTCATGA AAGATCCGAA TTATCAGTTG	5940
AAGGATTCAG ACATTGTCAA TGAAATCAAG GGTGGTTATG TTATCAAGGT AGATGGAAAA	6000
TACTATGTTT ACCTTAAGGA TGCAGCTCAT GCGGATAATA TTCGGACAAA AGAAGAGATT	6060
AAACGTCAGA AGCAGGAACA CAGTCATAAT CACGGGGGTG GTTCTAACGA TCAAGCAGTA	6120
GTTCGAGCCA GAGCCCAAGG ACGCTATACA ACGGATGATG GTTATATCTT CAATGCATCT	6180
GATATCATTG AGGACACGGG TGATGCTTAT ATCGTTCCTC ACGGCGACCA TTACCATTAC	6240
ATTCCTAAGA ATGAGTTATC AGCTAGCGAG TTAGCTGCTG CAGAAGCCTA TTGGAATGGG	6300
AAGCAGGGAT CTCGTCCTTC TTCAAGTTCT AGTTATAATG CAAATCCAGC TCAACCAAGA	6360
TTGTGAGAGA ACCACAATCT GACTGTCACT CCAACTTATC ATCAAAATCA AGGGGAAAAC	6420
ATTTCAAGCC TTTTACGTGA ATTGTATGCT AAACCCTTAT CAGAACGCCA TGTGGAATCT	6480
GATGGCCTTA TTTTCGACCC AGCGCAAATC ACAAGTCGAA CCGCCAGAGG TGTAGCTGTC	6540
CCTCATGGTA ACCATTACCA CTTTATCCCT TATGAACAAA TGCTGAATT GGAAAAACGA	6600
ATTGCTCGTA TTATTCCTTC TCCTTATCGT TCAAACCATG GGGTACCAGA TTCAAGACCA	6660
GAACAACCAA GTCCACAATC GACTCCGGAA CCTAGTCCAA GTCCGCAACC TGCACCAAAT	6720
CCTCAACCAG CTCCAAGCAA TCCAATTGAT GAGAAATTGG TCAAAGAAGC TGTTGAAAAA	6780
GTAGGCGATG GTTATGTCTT TGAGGAGAAT GGAGTTTCTC GTTATATCCC AGCCAAGGAT	6840
CTTTCAGCAG AAACAGCAGC AGGCATTGAT AGCAAACCTGG CCAAGCAGGA AAGTTTATCT	6900
CATAAGCTAG GAGCTAAGAA AACTGACCTC CCATCTAGTG ATCGAGAATT TTACAATAAG	6960
GCTTATGACT TACTAGCAAG AATTCACCAA GATTTACTTG ATAATAAAGG TCGACAAGTT	7020
GATTTTGAGG CTTTGGATAA CCTGTTGGAA CGACTCAAGG ATGTCyCAAG TGATAAAGTC	7080
AAGTTAGTGG ATGATATTCT TGCTTCTTA GCTCCGATTC GTCATCCAGA ACGTTTAGGA	7140
AAACCAAATG CGCAAATTAC CTACACTGAT GATGAGATTC AAGTAGCCAA GTTGGCAGGC	7200
AAGTACACAA CAGAAGACGG TTATATCTTT GATCCTCGTG ATATAACCAG TGATGAGGGG	7260
GATGCCTATG TAACTCCACA TATGACCCAT AGCCACTGGA TTAAAAAAGA TAGTTTGTCT	7320
GAAGCTGAGA GAGCGGCAGC CCAGGCTTAT GCTAAAGAGA AAGGTTTGAC CCCTCCTTCG	7380
ACAGACCATC AGGATTCAGG AAATACTGAG GCAAAAGGAG CAGAAGCTAT CTACAACCGC	7440

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GTGAAAGCAG CTAAGAAGGT GCCACTTGAT CGTATGCCCTT ACAATCTTCA ATATACTGTA	7500
GAAGTCAAAA ACGGTAGTTT AATCATACCT CATTATGACC ATTACCATAA CATCAAATTT	7560
GAGTGGTTTG ACGAAGGCCT TTATGAGGCA CCTAAGGGGT ATACTCTTGA GGATCTTTTG	7620
GCGACTGTCA AGTACTATGT CGAACATCCA AACGAACGTC CGCATTCAGA TAATGGTTTT	7680
GGTAACGCTA GCGACCATGT TCGTAAAAAT AAGGTAGACC AAGACAGTAA ACCTGATGAA	7740
GATAAGGAAC ATGATGAAGT AAGTGAGCCA ACTCACCCCTG AATCTGATGA AAAAGAGAAT	7800
CACGCTGGTT TAAATCCTTC AGCAGATAAT CTTTATAAAC CAAGCACTGA TACGGAAGAG	7860
ACAGAGGAAG AAGCTGAAGA TACCACAGAT GAGGCTGAAA TTCCTCAAGT AGAGAATTCT	7920
GTTATTAACG CTAAGATAGC AGATGCGGAG GCCTTGCTAG AAAAAGTAAC AGATCCTAGT	7980
ATTAGACAAA ATGCTATGGA GACATTGACT GGTCTAAAAA GTAGTCTTCT TCTCGGAACG	8040
AAAGATAATA AACTATTTTC AGCAGAAGTA GATAGTCTCT TGGCTTTGTT AAAAGAAAGT	8100
CAACCGGCTC CTATACAGTA GTAAATGAA TGGAGCATAT TTTATGGAGA AGTAACCTTT	8160
CGTGTTACTT CTCTTTTTTA GAAAAACGTA ACAGA	8195

(2) INFORMATION FOR SEQ ID NO: 95:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 2004 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 95:

TTTACTAAAA GAAAAAAGA ACTGATTCTT CAGTCCTTCA TTAATCTTAT TCCACACTAA	60
ATAGGTATGG GTAAACAGGT TGTGACCTT GGTGAATCTC GACTTCAACG TCTTCGAATT	120
CTTCTACGAT TTCTTGAGCG ATTTTCATTGG CAAGTTCTTC GCTTCCGTCT TCACCTACAT	180
AGAAGGTTAC GATTTCACCTG TCTTCATCCA ACATATGTTT CAAGGTTTCA GTCAATGITT	240
GGTGCATATC AGGGTTTGAC ACAAGAATTT TTCCATCCAC CATACCTAAA TTATCGTTTT	300
CATGGATTTT TAAGCCATCG ATCGTTGTAT CACGCACGGC TGTGTGACG CTTCGGCTAA	360
CGACATCGCT AAGAGCAGCT GTCATACGCT CTTGGTTTTT TCAATGGAC TTGCTTGGAT	420
CAAAGGCAAG AAGACTTGTC ATACCTTGAG GAAGAGTGCG AGCCTCTACC ACTACCGCTG	480
GTTGCTCCAA AACTTCTGCC GCAGATTGAG CTGCCATGAA GATGTTCTTG TTGTTTGGCA	540
AGAAGATGAT GTTACGGGCA TTAACCTGTT CAACAGCCTT GATAAAGTCT TCTGTTGAAG	600
GGTTCATGGT TTGACCGCCT TCGATAACAT AATCCACGCC TTGAGAACAG AAGATATCTG	660

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CTAGACCTTT ACCAGCCACC ACAGCAATCA AAGCATACTC TTTTCTTCA GCCGACTTGA	720
TAACTTGAGT AGCTTCTTTC TCAACCTGTG CTTCTGTGTG GTTACGCATA TTGTCAACTT	780
TTACCTTGAC CAAGCTACCA TATTGAGAC CTTCTTGCAT AACCAAGTCCT GGATCTTCTG	840
TATGAACATG GACTTTGACA ATTCATCAT CGTTAACAAC AAGGAGAGAA TCTCCAAGCT	900
CATCCAAGTA GTTACGGAAT TCATCGTAGT CAAAATCTTT AGCATAGGTT GGACCTTGCT	960
TAAGAGCTAC CATGATTTC GTACAGTAAC CAAACGTGAT GTCCTCAGTC GCTACGTGAC	1020
CAGCTACAGA CTTATGATGC TCTACATTGA TCATCTCACT CATGTTGGCA GGAGTCGCTA	1080
CAAAGTCCTC AGATGCAATA TATTCGCCAG TAAGGGCTGA AAGGAAACCT TCGTAGATGA	1140
AGACCAATCC TTGACCACCT GAGTCCACAA CGCCAACCTC TTTCAATACT GGAAGCATGT	1200
CTGGTGTTTT AGCTAGAGCT GTTTTAGCAC CTTCCAAGGC TGC GCGCATG ACTTCAACAG	1260
CGTCATCTGT TTGCTCAGCT TTTTCTTAG CACCGATAGC AGCTCCACGA GAACTGTTA	1320
AAATCGTTCC TTCAACAGGT TTCATCACTG CTTTATAGGC AACTTCCACA CCTGATTGGA	1380
AGGCCAGAGC CAAGTCTTGA CTTGTTAACT CGTCTTTATC CTTGATAGCT TGGGAAAATC	1440
CACGGAAAAG CTGAGACGTA ATCACTCCTG AGTTCCACG CGCACCCATC AAAAGCCCTT	1500
TGGCAAGAAT GCTCGCTACT TCTCCAAGT TAGAAGCTGG CTTGTCTGCA ACTTCTTTAG	1560
CACCATTTTC AATGGTCATT CCCATATTG TCCAGTATC TCCATCTGGA ACTGGAAAGA	1620
CGTTTAATGA ATTGACATAT TCAGCTTGCT TATTCAAGCG AGTTGATGCA GCCTGCACCA	1680
TTTCTTGAAA TAAGCTAGTA GTAATTTTGT ACACGGTTAT TCTCCTACAA CTTTGATATT	1740
TTGAATGTAG ACATTTACAG TCTGAGCAGT AATCCAAGC TGGTTTCCA AGCTAAAGGC	1800
AACACGCTCT TGAATGTTTT TTGACACTTC ACTAATCTTT GTTCCGTAGC TTAACACGGT	1860
ATATACATCA ACTGCAATAC TGCCATCTTC GGCTGCCTTT ACGACGACAC CTTTAGAATA	1920
ATTTTCCTTA CCTAGCAGGG CTTGGAAATT ATCTTTGAGG GCATTTTAC TAGCCATACC	1980
GACCACACCA GAAATCTCAG TTGC	2004

(2) INFORMATION FOR SEQ ID NO: 96:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 11915 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 96:

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CCGGGTTGGG CTGTTGCCCC ATTAAAGCGG CACCACAGCT GGGTTCAGAA CGTCGTGAGA	60
CAGTTCGGTC CCTATCCGTC GCGGGCGTAG GAAATTTGAG AGGATCTGCT CCTAGTACGA	120
GAGGACCAGA GTGGACTTAC CGCTGGTGTA CCAGTTGTCT TGCCAAAGGC ATCGCTGGGT	180
AGCTATGTAG GGAAGGGATA AACGCTGAAA GCATCTAAGT GTGAAACCCA CCTCAAGATG	240
AGATTTCCCA TGATTATATA TCAGTAAGAG CCCTGAGAGA TGATCAGGTA GATAGGTTAG	300
AAGTGGAAGT GTGGCGACAC ATGTAGCGGA CTAATACTAA TAGCTCGAGG ACTTATCCAA	360
AGTAACTGAG AATATGAAAG CGAACGGTTT TCTTAAATTG AATAGATATT CAATTTTGAG	420
TAGGTATTAC TCAGAGTTAA GTGACGATAG CCTAGGAGAT ACACCTGTAC CCATGCCGAA	480
CACAGAAGTT AAGCCCTAGA ACGCCGGAAG TAGTTGGGGG TTGCCCCCTG TGAGATAGGG	540
AAGTCGCTTA GCTCTAGGGA GTTTAGCTCA GCTGGGAGAG CATCTGCCTT ACAAGCAGAG	600
GGTCAGCGGT TCGATCCCGT TAACTCCCAT TTTAGCGGGT GTAGTTTGTG GGTAAAACTA	660
CAGCCTTCCA AGCTGTTGTC GCGAGTTCGA TTCTCGTCAC CCGCTTTGAA CTTTGTCTCT	720
TGTACCAAGT TTTTGACTTG GCGCGTAGC TCAGGTGGTT AGAGCGCACG CCTGATAAGC	780
GTGAGGTCGG TGTTTCGAGT CCACTCGTGC CCATAGTGTT TAGTCCATTA CTAGGGGATT	840
GGAATATTAT CTGTTCACTA AGAGGACACG GGCTTGTTCC CGTATAAACT ATTTTGAGAG	900
ATTACCCAAG TCCGGCTGAA GGAACGGTC TTGAAAACCG TCAGGCGTGT AAAAGCGTGC	960
GTGGGTTCGA ATCCACATC CTCCTTTTAT ATTAACGCGG GATGGAGCAG CTCGGTAGCT	1020
CGTCGGGCTC ATAACCCGAA GGTCGTAGGT TCAAATCCTG CTCCCGCAAT AAGGCTCGGT	1080
AGCTCAGTTG GTAGAGCAAT GGATTGAAGC TCCATGTGTC GCGGGTTCGA TTCCGTCTCG	1140
CGCCATTTAT ATATTTTGGA AGGGTAGCGA AGAGGCTAAA CGCGGCGGAC TGTAATCCG	1200
CTCCTTCGGG TTCGGGGGTT CGAATCCCTC CCCTTCCATT TTACGGGCAT AGTTTAAAGG	1260
TAGAACTAAG GTCTCCAAA CCTTCAGTGT GGGTTCAATT CCTACTGCCC GTGTTAATAG	1320
AATTATGGCG GGTGTGGTGA AGTGGTTAAC ACACCAGATT GTGGCTCTGG CATGCGTGGG	1380
TTCGATCCCC ATCACTCGCC TATTTTATAT TGGGGTATAG CCAAGCGGTA AGGCAAGGGA	1440
CTTTGACTCC CTCATGCGTT GGTTCGAATC CAGCTACCCC AGTTACTATT TGCCGGCGTG	1500
GCGGAATTGG CAGACGCGCT GGA CTCAAAA TCCAGTGTCC GCAAGGACGT GCCGGTTCGA	1560
CCCCGGCCGC CGGTATAGTA TAGTGTAGG AACGTTGTTA TTCTTCGTTC CTTTTTTATA	1620
TTATTTTTGG TATAATTATA GTTATTCAAA TTTTATTTAG ATTAAGAAAAG TGTAGGGGAG	1680
TATGTCTTGT TCTATCGATT TATTAACA TCGGTATTTG AAAAAATATTA AAGAAAATCC	1740
TGAATTGTTT GTCGGAATTG AGTTGGAGTA TCCTGTGCA AGTTTAGAAG GGGATGCTAC	1800



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AGATGTTGAA GTTATGAAGG ATCTATTTCA TTATTTAGTT TCTACTTTGG ATCTCACCGT	1860
AGCAAAGGTA GATGATTTTG GCAATCTGAT CCAGTTAGTA GATCCGATAA GTCAGGATGC	1920
TATTTTATTT GAAGTTTCCT ATACAACGAT TGAGTTTGCA TTTGGTAAGG CTGAAACGAT	1980
TCAAGAGGTC GAAAATCGTT TCAATAATTA TATGAATGTA ATTCAGAGAA AGTTAGCTGA	2040
ATCAAATCAT GCTATTGTTG GCTGTGGTAT CCATCCCAAC TGGGATAAAA ATGAGAATTG	2100
TCCAGTGGCT TATCCACGCT ATCAGATGTT GATGGATTAT TTGAATTTGA GTAGAAATAT	2160
TATTAAATCA GATTTACATC ATTTCCCTGA ATATGGTACT TTTATCTGTG GGAGCCAGGT	2220
TCAGCTGGAT ATTTCAAAAA CCAACTACTT ACGGGTGATT AATGCTTTTA CTCAAATTGA	2280
AGCGGCTAAG GCTTATTTAT TTGCAAATC TGAATTTTCG GGTGCGGATT GGGATACGAA	2340
AATTTCAAGG GATATTTTCT GGAAGAATC TATGCATGGT ATCTATCCAG AGAATGTTGG	2400
GGTCAATGCT AGACTCCTTA ATGATGAAAC TGATTTTTTT GACTATCTAA ATCATTTCTGC	2460
GATTTTACT GCGGAACGTG ATGGGCAGAC CTATTATTTT TATCCTATTC AGGCTGGGGA	2520
CTATTTGCT ACGTCCGAAA TCCAAGCATT TGCTCTGAAT GGGGATGAGG TTATTATTTA	2580
CCCCAAGAG AAGGATTTTG AAATCATCG TAGTTACCAG TACCAAGATT TAACGACTCG	2640
AGGAACAGTT GAGTTTCGTA GTGTGTGTAC ACAGCCACTT GATAGGACTT TTGCTTCTGC	2700
AGCTTTTCAC TTGGGATTAT TGGTAAATTT AGACAAGTTA GAAGCTTACT TAGAAACAGC	2760
ACCTTTCTTT AAAGTATTTG GTTATGATTA CAAGTCTTTA AGGAGACAAT TTTCTAAGAA	2820
AAATCTTACA GATGAGGAAG AAATACGAT TATTGAATTT TCCAAAGACT TACTCCTACT	2880
AGCTGAGGAG GGAAGTAGTG TGAGAAATAA GGAAGAAATG ACCTATTTAC AGCCTTTGAG	2940
AGAAGAATTG AGCCTATAAT TTCTCTTATA AAGGAGAAT TTTCTGAAAA ATCATGATAT	3000
AATGGACGAG ACTATAGATA AAGGATAGAG AGTAATGACA TTAGTTTATC AATCAACGCG	3060
TGATGCCAAC AATACAGTAA CTGCCAGCCA AGCAATTTTG CAAGGTTTGG CGACGGACGG	3120
CGGTTTGT TT ACACCGGATA CTTATCCAAA GGTAGATTG AACTTTGACA AATTGAAAGA	3180
TGCTTCTTAC CAGGAAGTTG CTAAGCTAGT TTTGTCAGCA TTTTATAGATG ACTTTACAGT	3240
TGAGGAGTTG GACTACTGTA TCAACAATGC CTACGATAGC AAATTTGATA CTCCAGCTAT	3300
TGCACCATTA GTGAAATTAG ATGGGCAATA CAATTTGGAA CTTTCCATG GTTCAACGAT	3360
TGCCTTTAAG GATATGGCCT TGTCTATTTT GCCATACTTT ATGACGACTG CTGCTAAGAA	3420
ACATGGTTTG GAGAACAAGA TTGTTATCTT GACACGACA TCTGGTGACA CGGGGAAAGC	3480
TGCTATGGCG GGGTTGCGA ATGTGCCTGG TACTGAGATT ATCGTCTTTT ATCCAAAGGA	3540

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TGGTGTCTCAGC	AAGATTCAAG	AGTTACAAAT	GACCACTCAG	ACTGGCGACA	ATACTCATGT	3600
TATTGCTATT	GATGGTAACT	TTGACGATGC	GCAAACAAAT	GTGAAGCACA	TGTTTAACGA	3660
CGTGGCTCTT	CGTGAAAAAT	TGACTACCAA	CAAGTTGCAA	TTTTCATCAG	CTAACTCTAT	3720
GAACATTGGT	CGTCTGGTGC	CACAAATTGT	TTATTATGTT	TATGCTTACG	CTCAATTGGT	3780
TAAGACTGGT	GAAATTGTAG	CTGGTGAAAA	GGTTAACTTC	ACAGTACCAA	CAGGAACTT	3840
TGGAAATATC	TTGGCTGCCT	TTTATGCCAA	ACAAATGGT	TTGCCAGTTG	GTAAATTAAT	3900
CTGTGCTTCA	AATGACAACA	ATGTTTGTGAC	AGACTTCTTT	AAAACACGTG	TCTATGACAA	3960
AAAACGTGAG	TTTAAGGTAA	CAACCAGCCC	ATCTATGGAT	ATCTTGGTAT	CTTCAAACCTT	4020
GGAGCGCTTG	ATTTTCCATC	TTTTTGGGAA	TAATGCTGAA	AAGACAACCTG	AACTTATGAA	4080
TGCCTTGAAC	ACGCAAGGAC	AATATAAGTT	GACAGACTTT	GATGCAGAGA	TTTTTGGACCT	4140
CTTTGCAGCT	GAATATGCGA	CTGAGGAAGA	AACGGCAGCA	GAGATCAAGC	GTGTTTGTGA	4200
GTTAGATTCT	TATATCGAGG	ACCCTCATAC	AGCTGTTGCT	TCAGCAGTTT	ATAAAAAATA	4260
CCAATCGGCC	ACTGGAGATG	TAACTAAGAC	AGTGATTGCT	TCAACAGCTA	GTCCATACAA	4320
GTTCCAGTA	GTTGCAGTAG	AAGCTGTAAC	TGGAAGCA	GGTTTAACAG	ACTTTGAAGC	4380
CTTGGCTCAA	TTACATGAAA	TCTCAGGCGT	TGCAGTGCCA	CCAGCAGTTG	ATGGGCTTGA	4440
AATAGCTCCA	ATTCGTCACA	AGACAACAGT	GGCAGCTGCT	GACATGCAAG	CAGCGTTGA	4500
GGCTTATTTA	GGACTTTAAG	ACAGAGGGAG	CAAACCTCGGT	TGGGAAACCA	ACTGAGTTTC	4560
TTTTCATCAG	GAGGAGAGAT	TGTTTAAGAA	AAATAAAGAC	ATTCTTAATA	TTGCATTGCC	4620
AGCTATGGGT	GAAAACTTTT	TGCAGATGCT	AATGGGAATG	GTGGACAGTT	ATTTGGTTGC	4680
TCATTTAGGA	TTGATAGCTA	TTTCAGGGGT	TTCAGTAGCT	GGTAATATTA	TCACCATTTA	4740
TCAGGCGATT	TTCATCGCTC	TGGGAGCTGC	TATTTCCAGT	GTTATTTCAA	AAAGCATAGG	4800
GCAGAAAGAC	CAGTCGAAGT	TGGCCTATCA	TGTGACTGAG	GCGTTGAAGA	TTACCTTACT	4860
ATTAAGTTTC	CTTTTAGGAT	TTTTGTCCAT	CTTCGCTGGG	AAAGAGATGA	TAGGACTTTT	4920
GGGGACGGAG	AGGGATGTAG	CTGAGAGTGG	TGGACTGTAT	CTATCTTTGG	TAGGCGGATC	4980
GATTGTTCTC	TTAGGTTTAA	TGACTAGTCT	AGGAGCCTTG	ATTCGTGCAA	CGCATAATCC	5040
ACGTCTGCCT	CTCTATGTTA	GTTTTTTATC	CAATGCCTTG	AATATTCTTT	TTTCAAGTCT	5100
AGCTATTTTT	GTTCTGGATA	TGGGGATAGC	TGGTGTGCT	TGGGGGACAA	TTGTGTCTCG	5160
TTTGGTTGGT	CTTGTGATTT	TGTGGTCACA	ATTAAAACCTG	CCTTATGGGA	AGCCAACTTT	5220
TGGTTTAGAT	AAGGAACTGT	TGACCTTGGC	TTTACCAGCA	GCTGGAGAGC	GACTTATGAT	5280
GAGGGCTGGA	GATGTAGTGA	TCATTGCCTT	GGTCGTTTCT	TTTGGGACGG	AGGCAGTTGC	5340

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TGGGAATGCA ATCGGAGAAG TCTTGACCCA GTTTAACTAT ATGCCTGCCT TTGGCGTCGC	5400
TACGGCAACG GTCATGCTGT TGGCCCGAGC AGTTGGAGAG GATGATTGGA AAAGAGTTGC	5460
TAGTTTGAGT AAACAAACCT TTTGGCTTTC TCTGTTCCCTC ATGTTGCCCC TGTCCTTTAG	5520
TATATATGTC TTGGGTGTAC CATTAACTCA TCTCTATACG ACTGATTCTC TAGCGGTGGA	5580
GGCTAGTGTT CTAGTGACAC TGTTTTCACT ACTTGGGACC CCTATGACGA CAGGAACAGT	5640
CATCTATACG GCAGTCTGGC AGGGATTAGG AAATGCACGC CTCCCTTTTT ATGCGACAAG	5700
TATAGGAATG TGGTGTATCC GCATTGGGAC AGGATATCTG ATGGGGATTG TGCTTG GTTG	5760
GGGCTTGCCCT GGTATTGGG CAGGGTCTCT CTTGGATAAT GGTTTTCGCT GGTATTCTCT	5820
ACGCTATCGT TACCAGCGCT ATATGAGCTT GAAAGGATAG GAAATGCAAA AAACAGCTTT	5880
TATTTGGGAT TTAGACGGA CTTTATTTGA CTCTTACGAA GCGATTTTAT CAGGGATTGA	5940
GGAGACTTTT GCTCAGTTTT CTATTCCTTA TGATAAGGAG AAGGTGAGAG AGTTTATCTT	6000
CAAGTATTCG GTGCAAGATT TGCTTGTCG GGTGGCAGAA GATAGAAATC TGGATGTTGA	6060
GGTGCTAAAT CAGGTGCGTG CCCAGAGTCT GGCTGAGAAG AATGCTCAGG TAGTTTGTAT	6120
GCCAGGTGCG CGTGAGGTGC TAGCTTGGGC AGACGAATCA GGAATTCAGC AGTTTATATA	6180
TACTCATAAG GGGAACAACG CTTTTACCAT TCTCAAGGAC TTGGGGGTGG AATCCTATTT	6240
TACAGAGATT TTAACCAAGC AGAGTGGCTT TGTGCGGAAG CCAAGTCCAG AAGCGGCTAC	6300
CTATCTGCTA GATAAGTATC AGTTGAATTC TGATAATACT TATTATATAG GGGATCGGAC	6360
TCTGGATGTG GAATTTGCCC AGAATAGTGG GATTCAAAGC ATCAACTTTT TAGAGTCTAC	6420
TTATGAAGGG AATCACAGGA TTCAAGCGTT AGCAGATATT TCCCGTATTT TTGAGACTAA	6480
GTGATAAAAA GATTGTGTCA GTTTTGTGAC AGAGACCTAA CAAACTATTT CAAGTAACCT	6540
AGTTTGTTAC AAGGAATAGA CAGTTCTGTT AAATAGGCCC GAGAGGGCTT TTTTCTACA	6600
TTTTTGTGT TATGATAGAC AGGTACTCAT TTGAAAGGAA TTTGAAAGAA TGAAGAAAAG	6660
AATGTTATTA GCGTCAACAG TAGCCTTGTC ATTTGCCCCA GTATTGGCAA CTCAAGCAGA	6720
AGAAGTTCTT TGGAAGTGCAC GTAGTGTTGA GCAAATCCAA AACGATTTGA CTAAAACGGA	6780
CAACAAAACA AGTTATACCG TACAGTATGG TGATACTTTG AGCACCATTG CAGAAGCCTT	6840
GGGTGTAGAT GTCACAGTGC TTGCGAATCT GAACAAAATC ACTAATATGG ACTTGATTTT	6900
CCCAGAACT GTTTTGACAA CGACTGTCAA TGAAGCAGAA GAAGTAACAG AAGTTGAAAT	6960
CCAAACACCT CAAGCAGACT CTAGTGAAGA AGTGACAAC TCGACAGCAG ATTTGACCAC	7020
TAATCAAGTG ACCGTTGATG ATCAAACGTG TCAGGTGCA GACCTTTCTC AACCAATTGC	7080

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AGAAGTTACA AAGACAGTGA TTGCTTCTGA AGAAGTGGCA CCATCTACGG GCACTTCTGT	7140
CCCAGAGGAG CAAACGACCG AAACAACCTCG CCCAGTTGAA GAAGCAACTC CTCAGGAAAC	7200
GACTCCAGCT GAGAAGCAGG AAACACAAGC AAGCCCTCAA GCTGCATCAG CAGTGGAAGT	7260
AACTACAACA AGTTCAGAAG CAAAAGAAGT AGCATCATCA AATGGAGCTA CAGCAGCAGT	7320
TTCTACTTAT CAACCAGAAG AGACGAAAAT AATTTCAACA ACTTACGAGG CTCCAGCTGC	7380
GCCCCATTAT GCTGGACTTG CAGTAGCAAA ATCTGAAAAT GCAGGTCTTC AACCACAAAC	7440
AGCTGCCTTT AAAGAAGAAA TTGCTAACTT GTTTGGCATT ACATCCTTTA GTGGTTATCG	7500
TCCAGGAGAC AGTGGAGATC ACGGAAAAGG TTTGGCTATC GACTTTATGG TACCAGAACG	7560
TTCAGAATTA GGGGATAAGA TTGCGAATA TGCTATTCAA AATATGGCCA GCCGTGGCAT	7620
TAGTTACATC ATCTGGAAC AACGTTTCTA TGCTCCATTC GATAGCAAAT ATGGGCCAGC	7680
TAACACTTGG AACCCAATGC CAGACCGTGG TAGTGTGACA GAAAATCACT ATGATCACGT	7740
TCACGTTTCA ATGAATGGAT AAACCCGACT TGATAACATC ATTTTGACGA ATGAGATCTA	7800
GCTTTCGTGA TGGAAAGCGA TTCTCGTTCG TTTTTCCTTT GTCATACTCT TCGAAAATCT	7860
CTTCAAACCA CGTCAGTTT ATCTGAAACT TCAAAGCTGT GCTTTGAGCA ACCTGCGACT	7920
AGCTTCCTAG TTTGCTTTTT GATTTTCATT GAGTATCAAT TTGAATGGAA AATGGAAAGT	7980
TATCATCTTG TAATGAGTTA AGCAACATTC TTGCAATCTA TTTTACTTTA TATCACAATT	8040
AATTAGTCAA ATATTGATAA ATCAATAAAA AGAGAGGGGA AGAAATGCTA GAGATTCAAG	8100
ATTTACTGTA TCAACTCCGC TTGTCTGAGC AAGCGAGTAC GCAATTGTTT GAAAAAGGC	8160
TTGGGATTAG TTTGACACGG TATCAGATTT TACTGTTTTT GCTGGAGCAT TCTCCTTGTA	8220
ACCAAATGGC GGTTTCAGGAG CGTTTGAAAA TTGATCAGGC TGCTTTGACA CGGCATTTCA	8280
AAATTTTGGA AACGGAAGGT TTGGTGGAGC GTCATCGTAA TCCTGAAAAT CAGCGGGAAG	8340
TGTTGGTAGA GGCTGCGAAG TATGCCAAGG AGCAGTTAGT GGTGAATCCC CCTCTGCAAC	8400
ATATCAGGGT TAAGGAAGAG ATAGAAAGTA TCTTAACAGA GTTTGAGAGA ACAGAACTCA	8460
GCCGTTTATT AAATAAATTG GTTTTGGGTA TTGAAAATAT AGAAATTTAA GGAGAAATAG	8520
ATGTCAATTA TTTTAACAAC GATCGTTGCT TTGGAGCATT TTTACATTTT TTATTTGGAA	8580
AGTATTGCCA CGCAATCAGA TGCGACTAGT CGTGTATTTA ATATGGAAAA GGAAGAATTG	8640
GCTCATCCGT CAGTAAGTTC ATTGTTCAAA AATCAAGGAA TTATAAGGC TCTGCTAGGA	8700
GTCTTTCTCT TGTATGTCAT TTATTTCTCA CAGAATTTAG AAATGTGAC TATTTTGTGTC	8760
TTATTTGTGA TTGGTGCTGC GACTTACGGC TCTTTAACAG CGGATAAAAA AATTATTTTG	8820
AAACAAGGTG GATCAGCTAT TTTGGCCTTG ATTAGTATTT TACTCTTTAA ATACACTTGA	8880

AGGTCGATTC TAATCTCGCT AATCCTTTTT AATCCAGAAT AAGGGAAATA TGTTATACTT	8940
GTTTTTAAGA AAAAAGTCTC ATTGAATTGG TTTTGAGGAG TTAGAAATGA AAGTATTAGT	9000
GACAGGTTTT GAGCCCTTTG GAGGGGAAAA GGGCAATCCA GCTTTGGAGG CCATTAAAGG	9060
TTTACCAGCT GAAATCCATG GTGCTGAGGT CCGTTGGCTA GAGGTGCCGA CAGTTTTTCA	9120
CAAATCTGCT CAAGTATTGG AAGAAGAGAT GAATCGTTAT CAACCTGACT TTGTCCTTTG	9180
TATTTGGCAA GCTGGTGGAA GAACTAGTTT GACACCTGAA CGAGTGACCA TTAATCAAGA	9240
CGATGCATGC ATTTCTGATA ACGAAGATAA TCAACCGATT GACCGTCCCA TTCGCCCAGA	9300
TGGTGCTTCG GCCTACTTTA GTAGTTTGCC GATTAAAGCG ATGGTTCAAG CTATAAAAAA	9360
AGAGGGCTTA CCGGCCTCTG TTTCCAATAC GGCAGGGACT TTTGTCTGCA GCCATTTGAT	9420
GTATCAGGCT CTCTATTTGG TAGAAAAGAA ATCTCCATAT GTTAAGGCAG GTTTTATGCA	9480
TATTCCTTAT ATGATGGAAC AGGTGGTGAA CAGACCGACT ACTCCAGCTA TGAGTTTAGT	9540
GGATATTTCG CGAGGGATAG AAGCAGCAAT CGGCGCTATA ATAGAACATG GAGATCAGGA	9600
ACTCAAGTTG GTAGGCGGAG AAATCATTG ATAGAAAAAA GCTTGAGGGG AAAAACCTTC	9660
AAGCTTTTGG ACGTTTTCGG GCCAATACTG CTCGGTAAAA CATAATTTTA GTGCATTGGA	9720
TATAAGGTAG GAGTGAAAAA CTAGCAATGC CAAAGGTAAT CCAATTGAGG AAGTACCAAG	9780
GAAGAAGCTG TAAATCTAGG ACAAAGTGCT GGAAC TTGTA GCCCTTCATA AAGGAACGGC	9840
TAGTTTTTAG GATTCGTCTT GGTGGGACCT GTCCTAGGTC TAGACTATAA CAGAGAAGAA	9900
ATTCCACCTG TGAATAGGCA TAATACTGTG GAATATAGAG GATATTTTCT ACAATGATCA	9960
AGATGAGACT TGCAAGAAAG TAGAGTCCAA AGACCATGAG GAAACGCTCG GTTCAACTG	10020
ATGAGAGATC TAGATTTGGA AACTCAGGAT GTAGGGTGAC GAATTTTTTTG GCTAAAAAGC	10080
TACTATAAAA GAGGAGGTAA ATCCCAAGTA AATTAGGGAT ACTCCATAAA AAGAGATAGA	10140
AACGTTTGAG AAGTAGGGTC AAAAAGGTTT GAGAAAAGCG CTCCTCATCA AAGAGAGCTA	10200
GGCTGTTTTT TACAGATGGC TCCGTTTTAG AATCTTTCAT GAGTGTCAGT GTTGCATAGA	10260
CGGAAGTGGT CAAAAGAATA GTCCCGATAA AGGAGACTAG TAGAGGAAAG AGGTAGGTTT	10320
GAAGTATTTG GCCAAGTATG CTGAAAAATG GCTGTTCTAA AACAGTCCCG TGGATCCGAG	10380
ATAAGGGATT AAGAAAACCA GATAAGATGA CCAGCATACT GGGGAAGGATA TAGAGGAGAA	10440
AGAGACGGGG GGTGTCAGCC TGAAAAATGT TTAGCTCCTG ACGAATTGTT TTTAAATCAA	10500
TTTTTGATA GTTCATTCTC TTATTATACC ATAGTTCTTA TACATAGTTC GTGACAGTTC	10560
CTACTTTTTT TGATAAAAATC ATACAGTGTG TCCTTGGGCA CACTGTATGA ACTGGGACTG	10620

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TCTTTCCCAG	CTTCGGAGGT	AAAAAATGTC	AGATTCACCA	ATCAAATATC	GTTTGATTAA	10680
GAAAGAAAAA	CACACAGGAG	CTCGTCTGGG	AGAAATCATC	ACTCCCCACG	GTACCTTTCC	10740
GACACCTATG	TTTATGCCAG	TTGGGACACA	AGCCACTGTC	AAAACCTCAGT	CACCTGAAGA	10800
ATTGAAGGAG	ATGGGTTCGG	GAATTATCCT	ATCAAACACC	TATCATCTCT	GGCTTCGCCC	10860
TGGAGATGAA	CTCATGTCAC	GCGCTGGTGG	TCTCCACAAG	TTCATGAATT	GGGACCAGCC	10920
TATCTTGACA	GATAGTGGTG	GTTTTCAGGT	TTATTCTTTA	GCAGATAGCC	GTAATATCAC	10980
AGAAGAAGGA	GTAACCTTTA	AAAATCATCT	AAATGGTTCT	AAGATGTTCC	TATCCCCAGA	11040
AAAAGCCATC	TCTATTCAGA	ATAATCTGGG	TTCAGACATC	ATGATGTCCT	TTGATGAATG	11100
TCCTCAGTTT	TATCAACCTT	ATGACTACGT	TAAGAAATCG	ATCGAGCGTA	CCAGCCGTTG	11160
GGCTGAGCGT	GGTTTGAAGG	CTCACCGTCG	TCCACATGAC	CAAGGTTTGT	TTGGAATTGT	11220
GCAAGGTGCA	GGATTTGAAG	ACCTTCGCCG	CCAATCAGCT	CATGATCTTG	TCAGCATGGA	11280
TTTCTCAGGC	TACTCTATCG	GTGGTTTGGC	AGTGGGAGAA	ACCCATGAAG	AGATGAATGC	11340
GGTCTTGAC	TTTACAACCT	AACTGCTGCC	TGAAAATAAA	CCTCGTTATC	TGATGGGTGT	11400
GGGAGCGCCA	GATAGCTTGA	TCGATGGGGT	CATTCGTGGG	GTGGATATGT	TTGACTGTGT	11460
CTTACCGACT	CGAATGCTC	GTAACGGGAC	TTGTATGACC	AGTCAAGGAC	GTTTGTTGT	11520
GAAAAATGCC	CAGTTTGCTG	AGGACTTTAC	GCCACTGGAT	CCTGAGTGTG	ATTGCTACAC	11580
ATGTAATAAC	TATACACGCG	CTTACCTTCG	TCACCTGCTC	AAGGCTGATG	AAACCTTTGG	11640
TATCCGCTTG	ACTAGCTACC	ACAATCTTTA	CTTCTTGCTT	AACCTGATGA	AGCAAGTGCG	11700
ACAAGCCATC	ATGGATGACA	ATCTCTTGGA	ATTCCGTGAG	TATTTTGTGG	AAAAATATGG	11760
CTATAATAAG	TCAGGACGTA	ATTTCTAAAA	TGGAATTGAT	ATAAAAAAAT	CCTAAGTTTT	11820
CTCTTAGGAT	TTTTCTTCTT	TTTTTGATAG	AATAAAGTGT	ACAATGAAAG	GAAGAATAAA	11880
CTCGTATGCG	CATTAAATGG	TTTCCTCGA	TTAGG			11915

(2) INFORMATION FOR SEQ ID NO: 97:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 9069 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID NO: 97:

GAGAGGGCAA	CAGTCTATC	GCTTCAAATT	TTTTCTTGGT	TTGCAGATAT	TCAAGAATCG	60
GGAGTTTTC	TATAGTATC	GGCAGATTTA	TTACAGCCAA	GCATCTCAA	AATACGGACA	120

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GCATCCTCCA TCTTTTCTG GCCTTCCTTG ACTCTACCTT GCTTGCTATC AAGGAGACCT	180
TCTGCCCACA GATAACAAT TCGGAAATAG GTCTCATTTT CTTGTAGAA ATGCTCTTCG	240
ATAACACGTT TAAAAATAA GGCATTGGTA AATTCTTCAC ACTCAATACT AGCTAAAAAG	300
CCATTCAATA GTATAGTATG AAAAAGGTTT CGATTGCCAG ACATTTCCAT TAGAAAAATCA	360
GATTTACGTA CCATTTCTCG TACATATCTA GTAAAAAGAG AAACAGATAA AAATGGAGAA	420
CTGACTGAAA ATAAATTGAG TTCATAGATT CCCCAGATCT CGGTAGAAAA CAAATAATCA	480
TGAAGGACTT TTCCTTCCTC TGCTGTTAAG TCTACCTTT CATCTATGCT CTTCATATAA	540
GACTTGATAA TAATGGCATT TAGAATATGT TTCTGTTTGT TGTGAGAATG GGCATGCTTT	600
TATACTCCCT GCGATATAAG TCCTCAAGAG GTGCTATATT CTTTGGTTCC AAGACATCTG	660
TAATTTCTTT TCTCAACTCA GAATCTGTAT CATACTGGAA ACCTCTTGCC AGAAAGAGGA	720
TCTCCTCCAC ACTGGCAGAT ATATTTTCCA GAGCAAATAG AAACCTTTCC ACCGAAAGCT	780
CACTCTGACC TGTTTCAAAA CGGGACAACA TAGACGGCGA AAATTGTCCT CCGGTTGCTT	840
GTCTCACTGA GATATTCTT GACTCTCGTA ATTGTCTAAA GACTTTTCCA ATCTGCTCCA	900
TAGACTTCCC CTTGATTCG TATTTTCTTC ATTTTATCAT ATTTTTCAGA AAATTCATCA	960
AAAACCTGCC AAATTGTCAG AATTATGAGA AAATAGAGGA TATTTATCAC GTGGAGGGAC	1020
TGCTATGAGA GACGATATCA AAATCAATGA CCGTGCTTTG GCCTTGCAAG ACCAAATTAT	1080
CGAAAACTA GAGAAAGTTT TTGATACAGA TGTGGAATTG GATGTTTACA ATCTAGGTCT	1140
GATTTATGAA ATCAATCTGG ATGAAACGGG GCTCTGCAAG ATTGTCATGA CCTTCACCGA	1200
TACTGCCTGT GATTGCGCCG AAAGCCTGCC TATTGAAATC GTGGCAGGTC TGAAACAAAT	1260
CGAGGGTATC AAAGATATCA AGGTTGAAGT TACCTGGTCG CTGCTTGGA AAATCACACG	1320
AATCAGTCGC TATGGCCGTA TTGCCCTTGG ACTACCACCT CGTTAAGCAG ACCAATCACT	1380
TTTAAAGATG AAAATCAAAG GGCAAAC TAG AAAACTAGCC GCAGGTTGCT CAAAACACTG	1440
TTTTGAAGTT ATGGATAGAA CTGACGAAGT CAGCTCAAAA CACTGTTTGT AGGTTGTGGA	1500
TAGAACTGAC GAAGTCAGCT CAAAACACTG TTTTGAGGTT GTGGATAGAA CTGACGAAGT	1560
CAGCCCAAAA CACTGTTTGT AGGTTGTGGA TAGAACTGAC GAAGTCAGTA ACCATACCTA	1620
CGGCAAGGCG ACGTTGACGT GATTGAAGA GATTTTCGAG TATGAGTTTA TTTTTCACCT	1680
GACTTGTTCA TATTCAGAA GTCTGTCACG GCTCCGCTG AAGCAGATGA TACGATGTGG	1740
GCATATTTAC CGAGGACACC ACGGCTGTAA AGTGGTGGCA AGGTTGTTTC TGCCTTGCGT	1800
TTTTCAGGTT CTTCTTCGGA TACGGCCATA GAAATTTCTT TGGTATCTTG GTCAACCGTA	1860

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ACGATATCGC	CGGTACGGAG	ATAGGCAATT	GGTCCACCAT	CCTGAGCTTC	AGGAGCGATA 1920
TGTCCAACAA	CCAGACCATA	AGTACCACCA	GAGAAACGTC	CGTCCGTC	AA 1980
TTATCTCCCT	GACCTTTACC	AACAATCATT	GAAGAAAGTG	ATAGCATCTC	AGGCATACCA 2040
GGACCACCTT	TAGGTCCAAC	AAAACGAACA	ACGACTACAT	CGCCATCAAC	GATTTTCATCT 2100
GTCAGAACGG	CCTGAATCGC	ATCTTCTTCT	GAGTCAAAGA	CCTTAGCTGG	CCCAACGTGA 2160
CGACGCACTT	TAACACCTGA	TACCTTGGCA	ACTGCACCGT	CAGGAGCAAG	GTCCCCGTTC 2220
AAGATGATAA	GCGGACCATC	CGCACGTTTT	GGATTTTCAA	GTGGCATGAT	AACTTTTTTGG 2280
CCTGGAGTCA	AGTCTGCAAA	GTCAGCCAAG	TTTTTCAGCTA	CAGTCTTACC	AGTACATGTG 2340
ATGCGATCTC	CGTGAAGGAA	ACCATTTGCC	AACAAATACT	TCATAACCGC	AGGGACACCA 2400
CCGACTTCGT	AGAGGTCTTG	GAAGACATAC	TGACCAGATG	GTTTCAAGTC	GGCCAAGTGA 2460
GGCACACGTT	CTTGAATCGT	ATTGAAGTCC	TCAAGTGACA	AGTCAACATT	TGCGGCATGG 2520
GCAATGGCGA	GCAAGTGAAG	AGTGGCGTTT	GTAGAACCAC	CGAGAGCCAT	CGTTACAGTG 2580
ATAGCATCTT	CAAAGGCTTC	ACGAGTCAAG	ATATCTGATG	GTTTGAGACC	AAGTTCCAAC 2640
ATCTTAACAA	CAGCACGTCC	TGCTGCTTCG	ATATCTTCTT	TCTTATCAGC	TGATTTCAGCT 2700
GGGTGAGAGG	ATGACCCTGG	CAAACATCATC	CCTAGAACTT	CGATAGCAGT	TGCCATGGTA 2760
TTAGCAGTAT	ACATACCACC	ACAACCACCA	GGGCCAGGGC	AGGCATTACA	TTCAAGACGT 2820
TTCACGTCTT	CAGCTGTCAT	GTCACCGTGG	TTCCATTTTC	CGATACCTTC	AAAGACAGAA 2880
ACCAAGTCGA	TATCTTTACC	ATCAAGATTT	CCCGGTGCAA	TAGTTCCACC	ATAGGCGAAA 2940
ATAGCTGGGA	TATCCATATT	AGCAATAGCA	ATCATAGATC	CAGGCATGTT	CTTGTCACAG 3000
CCACCGATAG	CGACGAAGGC	ATCCACGTTG	TGACCACTCA	TAGCCGCCTC	GATGGAGTCC 3060
GCGATGATGT	CACGAGATGT	TAGAGAGAAA	CGCATACCAG	GCGTTCCCAT	AGCGATCCCG 3120
TCCGCTACGG	TAATGGTTCC	AAACTGTACA	GGCCAAGCGC	CTGCAGATTT	GACACCTTCT 3180
TTAGCCAGTT	TCCCGAAATC	ATGCAAGTGA	ATGTTACATG	GTGTATTTTC	CGCCCAAGTC 3240
GAAATCACTC	CCACAATCGA	TGTTTCAAAG	TCCTTATCTG	TCATACCAGT	CGCACGAAGC 3300
ATAGCACGGT	TAGGTGATTT	AACCATGCTG	TCATAAATGC	TACTGCGGTG	ACGTTTATCT 3360
AATTCAGTCA	TCTTATCCCT	CCCATTTTCT	TTTTTACTAT	TATAGCACAA	TTTTTCGCATG 3420
AAGAACAGAA	TAAAATCTTT	GAATTTTCTG	AAAATTCTAT	ACACATGTGA	AATATTTAAA 3480
ATTAAAAACA	ACAAAGCGGA	TTAGTGCATC	TTCTGATGAC	CAGAATATGC	TTTTTAATCC 3540
GCTTTCTTTA	AATAACGTAC	TGTAATTTTT	ACAGAAATTC	TTTCAAATAA	GTGTATTTAA 3600
CATCTATCTT	GCATTATAAA	TTTCTAGAAC	CTTCTCTTTT	ATATTCGATT	CACTCAAACC 3660



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ATACTCATTA AGAAGATAAT CCATTTTCCC TACTTGACCG AATCTTCTT GAACACCCAT	3720
CCGATGAATT TTTGTTATTC CATCATCAGA GAATAATTCA CATAAAGCAC TGCCAATTCC	3780
ACCTATCTGA TTGTGGTTTT CTACAGTAAA TATAGTTTTT CCACTTAACA TTGTTTTTAT	3840
CTGTTCTGGT ATCGGTTTGA TTCTAAATAA ATCTATCACA CCTACTGAAT AACCTAATTT	3900
AGACAGTTCA TCTGCAACTC GAATACTTGG AGCAACCATT ATGCCAGAAG CAACGATTAC	3960
AAGATCTTCA CCATGCCTTA ACTCAATGTA GCCTTTAGAA AAATCTTCTC CACCTTGATA	4020
CACAGGAACT GGAGCTTTTC TAATTGTTTCG AATATATTTT AGTCCTTTTA AGTCTAATGT	4080
CTGGTTCAAT ATTTACAGAA ATTGGATATC ATCAGTTGCT TCGAAAATGA TTGATTTAGG	4140
AATTAAACGT AACAAATCCAA TTTCTTCAAA TGGCATATGT GTTCCACCAT TCATCTCTGC	4200
CGTTACTCCT GCATCTGATC CAATCACAGT GGCATCCAAT TGTGCGTATC CAAGAGAAAT	4260
AAATAATTGA TCAAATACTC TTCGTGAAGC AAAAGGACCA AATGTATGAA GATAAGGTCT	4320
AAACCCCTGA ATAGACAAGC CTGCTGCAAG GCCGACCATT TCTGCTTCCA TAATCCCAAC	4380
ATTACATAA CGGTCTCCAA AGTCCTTTTC AAGATTATTA GTAGCCATCG AACTTGACAA	4440
ATCGGCTTCT AAGACTACTA TATCAGAATC ACTTTGATTA GCCTCTAAAA GGAAGTCTCT	4500
ATATACATGC CGTAATTCTT TCGTACTTCT CATCATCTG TTTCTCTCAA TTCCTGACTT	4560
AATCTTTCTA CAACTGAAGT TAACATTTGT TTCTCCTCTA CAGTAGGGCG AAGATGATGA	4620
TTGGATTTC TTTCTTCCAG CTCTTGAACC CCTTGACCTT TAATAGTATC TAATACAATG	4680
CACCTAGGTG ATGAATTATT TGACTGTTTT AATTGGACAA TCCCTTCATA AATTTCTCTA	4740
ATATCTGAAC CCTTGACCCT AATGGATTCA AATCCAAATG CTGAAAATTT TTCTACGAAA	4800
TCACCTGGAT TACAAATATC CTTTGTAATA CCATCTAATT GTTTTTTGTT ATCATCAACA	4860
AATACAATTA AGTTGGATAA CTGTTGATGA GAAGCAAACCT GTATAGCCTC CCAACATTGT	4920
CCCTCATTTA ACTCACCATC TCCAACAATA GCGTAAGTAT AAAAGGGACT CTTTCTTATT	4980
CTCTGACCAT ATGCAAGTCC AGTTGCAACA CTAATTCCTT GTCCTAAAGA GCCCGTTGTC	5040
ATATCTATGC CTGGCGTTAG ATTTCTATCA GGATGAGACG GTAATTTGGT TCCATTTGTA	5100
TTTAAAGAAT ATAAGAATTC TTTGTCAAAG AAACCATTCA AATAGAGTGT ACTGTATAGA	5160
GCTGGTCCTC CGTGACCTTT TGATAATATG AAATAATCTC TATCTCGTGC TGCAAATATT	5220
TCTGGAGTCA TTGGCATTAT TTCACCATAA AGCACCGCTA AAACCTCTAC GATAGACAGA	5280
CTTCCTCCGT AATGTCCGAA TCCAAGATGA TTCAATGTTT TAAGAGTATT TAATCGGATG	5340
TTAGTCGCAA ATTTTCTTAA CCCATCTTCT CTATTTTAC TTAAAATCAT CCCTTATTC	5400

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TCCGTTGCAG ATGGCTTTTT AATAAAGGAT ACTCCAAACA TAACTGCTAG AATAAGAACA	5460
AGACCAATCA CAATGCCTGC TTGTGAGCCA AATTGATTTA ACATTCCTAA AATAATTCCT	5520
GATAGACCAA AATCTGCATC TGAGAAAGTT GATCCTTGGA AACCAAGTCC TCCCAAACT	5580
GGCATTAAAA AGACTGGAAG AAAACTGATT AAAATACCTT GTAAAAATGC TCCAATAGTG	5640
GCTCCACGAA CACCACCAGA TGCATTCCCA ATGACACCTG CAGTCGCTCC ACAGAAGAAA	5700
TGAGGCACAA CACCTGGTAA GATAACAACC GTTCCTGAAG CAATCATAAT TACCATACTT	5760
ACTAAACCAC CAACAAAAC AGAGATAAAT CCAATTAGAA CTGCATTGGG TGCATAAGTA	5820
TAAACAATCG GACAATCCAA AGCAGGTTTT GAATTAGGTA CAAGACGCTC TGAAATACCT	5880
TTAAAGGCTG GAACAATTTC GCCCAAAATA AGGCGAACAC CTGCTAAAAT AACAAATACC	5940
CCTGCTGCAA ATTGACCTGC TAATTGTAAA GCATAAATA GACCACTTGT ACCACTACTG	6000
ATTTCTTTTT CTATATATTC TGACCCTGCA AAGATAGCTA CAATAATGTA AATAACTGCC	6060
ATGGATAAAG TAATACTAAC AGTACTATCA CGTAAAAAAG CTAAACTCTT TGGAAATTTA	6120
ATGTCCTCTG TTGATTTTGA TTTGTCACCG ATAAGGCTAC CAGTAAAACC ACTCAACCAA	6180
TATCCCAAAG AACTGAAATG ACCTAAAGCT ACCTTGTCAT TTCCAGTTAA TTGAACCATA	6240
TATTTTGTGA CAAATGCTGG GGAAATACTC ATAATAATAC CGAGTGCTAA TCCTCCTAGT	6300
AAGATGAGAG GCAAGCTAGT AAAGCCAGCA ACTGATAAAA TGACCGCAAT CATACATGCC	6360
ATATATAGAG TGTGGTGCCC TGTAAAAAA ATATATTTAA ATCGAGTAAA ACGAGCGATT	6420
AAGATATTGA ACACCATGCC TGCAACATA ATCATTGCAG TAGCTGAGCC ATATGTTGTT	6480
AAAGCTACAG CTACAATTGC TTCATTATTC GGCACAACGC CAGATAAATG AAAAGCATGC	6540
TCAAACATGG TACCAATGG ATTTAAAGAA TTTTGTACAA TTCCTGCACC ACCAGATACA	6600
ACTAAGAAAC CAACAAAGGT CTTAATTCCA CCTTTAATAA TATCAGGTAA TTTCTTCTTC	6660
TGAAGAACTA ATCCTAAGAT TGCAATTAAA GCTACTAAA TAGCTGGTGT ACTAACAATA	6720
TCCAATATGA ACTTCATCAT GACGCTAGCC TCCTATATAA GTCCTTTTTC TTCACAAAGT	6780
TTAGTAATTA ATTCTCGTAG TTCATCCATA TCAATAATAC TATTTAAGAT ACGAACATCT	6840
CCAAGATGAC TAGCTGAATC AGCTAGATCA CGACCAACAA TCCAATATC AGCTGCATTT	6900
GGATCTGCTC CACCTAAATC ATAATGTTCA ACTTCTACAT CCGAAACATT CAAATCACTC	6960
AATACAGATT CAATATTCAT CTGTACCATA AAACCTGAAC CTAATCCTGA ACCACAAGCT	7020
GTACCAATTT TTAACATTAT CTAATCCTCC TGTTTAATTA TCATTTTAAT GTCATCATAG	7080
TTTTTTGATG ATATTAAAGT TTGAACATGA TTTTATCTC TTAAAATTGT TGTTAAATGT	7140
GACAAAGCCT TTAATGACT CTCATTATCA ATGGCTGCAA TACAAATCAA CAATCTTACC	7200

745

TCTTGTCTCG	GATTATCCAA	TAAATAAATC	GGTTCCTCCA	AAACTAACAT	TGACATTCCCT	7260
ATTTTCATCA	CACCTTCATC	TGGCCGAGCG	TGAGGAATTG	CTACTCCCTT	CCCTAAATTA	7320
ATAAAAGGTC	CAAACCTCTC	TACTTTTTGA	ATCATTGCCT	CAGGGTAGTT	CTCAGTTATC	7380
TTATCTTGAT	CCAAAAGCGG	TTTAGCTGCT	AAACGAATCG	CCTCCTTCCA	TCCTAATTTT	7440
TGCGAACTAA	CCTGATAGGT	TTCTTTGGTA	ATAAGTTGTT	CTAGCACTGG	TACAATTTC	7500
TTTCTATCAT	TTTTTTGGTA	AAGATAATTC	TTTAACGCCA	ATCTTAATTC	CAATTCTTGT	7560
GTAATAATTC	CATATCTTTT	GACAATATTC	AGGATTTGTT	CAATCTCAA	ATCTCCATAC	7620
TCTAAATTCG	GAAAATCTTT	TAACACTAGT	TCTACTAGTT	GTATTGCTTG	CTCTTCAGTC	7680
ATCATAACCG	AAACTAGATA	ATTTGGCTTT	TCTGTCTCCA	CCTTTATGGT	AGAAAAAACC	7740
ATATCATAGT	CACTACTAGC	TTTCACCTGT	AAATCATCAA	TCTTTGAGGT	TCCTATAAAC	7800
TCAATTTGAG	GAAATAATGC	TAATAGATTC	TCTTTTAACA	TCAATGAAGA	ACTAACACCA	7860
TTAGGACAAA	TGATTGCTGC	TTTATACCAT	TTTTGAGGCA	AAGTATCTGC	TTTCTTTAAA	7920
TAACCTCCGA	AATGGATAAC	AAAATATGCT	GTTTCACTAT	CAGGTATGGG	ATTGTCAATA	7980
GCGTCCATCA	AGGGCATCAA	AGAATCTTTG	ACTAATTCAA	ATAAATCAGG	ATAATGTTCT	8040
TTAACATGCA	ATACATATTC	ATTTGAACTA	GGTAGGCCGA	ACTTTAATCT	ATAGTAAGCC	8100
GGTATAAGGT	GGCGGCGAAG	ATTTTCTCTC	AATCCTTCCC	TTTGTTTAAA	ATGTAACAAA	8160
GAAATATCTT	CCATTCTACT	TATAATAGCC	TCTGTTAATT	GATTAAAGTA	AACCGGAGCA	8220
ACATCTACTT	CACCTTCAA	GCAACTTGAT	AATAAACGG	TGATATAGCG	ATAATCATCC	8280
TCAGAAAACA	CCGTATCTAT	AATTCCCAA	TCAACCACTG	TATCCAATAA	AATAGTGGTT	8340
ATATCTTGAA	TAACAGGAGA	TACTAATGTC	TCTGAAAGAC	ATACTCTTTC	AACATCCCTT	8400
TGATACCTAC	ACAGAATGAA	TACTAAACCG	AAAAGGTAAA	CTTTTAATTG	ATTAACAATA	8460
GGTACTAGCT	GTAGCTTCTC	ATAATAATCT	TTAACTACCT	GATCAATCAA	ATCATAAGTT	8520
AATGAATACC	CCCAACTGGA	TAAAACATAA	TCCAAACCCC	AAATCCCTAT	GGAGGATTC	8580
AGCAACTCAC	TAACCATTTG	AAAAGCTAAG	CGGTGCTTAT	TCCACTCTGA	ACCGTGTA	8640
GTATAACCTT	TTGCTCTACT	GTACCCTAGC	TCCAAATCAT	TATCTAACAT	AATCTTTCTT	8700
AATGATTGAA	TATCAGATAA	GGTTGTATTC	TTACTTACTT	TCAAAAAGTC	TTGGTAATGA	8760
CTATTCGATA	TAAAATCTAA	TCGGCAAAAA	GTGTAAAGAT	AGATTAAAGC	TAAGCGAGTC	8820
GACTTTGGTA	AAACCAATTC	ATCCGACTTA	ATAATATCTG	TCAAAGACTG	CTTCGTACGA	8880
TTTGATAAAC	TATAGCGACC	TTGCTTTTTA	TCCAGCACTA	TCCCTTTATT	AGCTAGATAA	8940

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GGCACTAAAT AATCTATTCC TTCTTTGACT TCCTTTATAG GTAAGCTCAC CTTAACAGAT	9000
AATTTCATATA ACGATAGCTC ACAATGATCC ATCAAAGTCA TCAAAATAAC TAGTGCTCTA	9060
TAATCAAAC	9069

## (2) INFORMATION FOR SEQ ID NO: 98:

- (i) SEQUENCE CHARACTERISTICS:
- (A) LENGTH: 8654 base pairs
  - (B) TYPE: nucleic acid
  - (C) STRANDEDNESS: double
  - (D) TOPOLOGY: linear

## (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 98:

CGAGACAACA AGATGAAGAA AAATTTGCCC TATCGTTTGT GGCGCTTGCA AGTGTAGCAC	60
TTCTTGCAGC CTGTGGAGAA GTGAAGTCTG GAGCAGTCAA CACTGCTGGT AACTCAGTAG	120
AGGAAAAGAC AATTAAAATC GGGTTTAACT TTGAAGAATC AGGTTCCTTA GCTGCATACG	180
GAACAGCTGA ACAAAAAGGT GCCCAATTGG CTGTTGATGA AATCAATGCC GCAGTGGTAT	240
CGATGGAAAA CAAATCGAAG TAGTCGATAA AGATAATAAG TCTGAAACAG CTGAGGCTGC	300
TTCAAGTTACA ACTAACCTTG TAACCCAATC TAAAGTATCA GCAGTCGTAG GACCTGCGAC	360
ATCTGGTGCG ACTGCAGCTG CGGTAGCGAA CGCTACAAAA GCAGGTGTTT CATTGATCTC	420
ACCAAGTGCG ACTCAAGATG GATTGACTAA AGGTCAAGAT TACCTCTTTA TTGGAACCTT	480
CCAAGATAGC TTCCAAGGAA AAATTATCTC AAAGTATGTT TCTGAAAAAT TAAATGCTAA	540
GAAAGTTGTT CTTTACACTG ACAATGCCAG TGACTATGCT AAAGGGATTG CAAAATCTTT	600
CCGCGAGTCA TACAAGGGTG AAATCGTTGC AGATGAAACT TTCGTAGCAG GTGACACAGA	660
CTTCCAAGCA GCCCTTACAA AAATGAAAGG GAAAGACTTT GATGCTATCG TTGTTCTGG	720
TTACTATAAT GAGGCTGGTA AAATTGTAAA CCAAGCGCGT GGCAATGGGAA TTGACAAACC	780
AATCGTTGGT GGTGATGGAT TCAACGGTGA GGAGTTTGTA CAACAAGCAA CTGCTGAAAA	840
AGCATCAAAC ATCTACTTTA TCTCAGGCTT CTCAACTACT GTAGAAGTTT CAGCTAAAGC	900
TAAAGCCTTC CTTGACGCTT ACCGTGCTAA GTACAATGAA GAGCCTTCAA CATTTGCAGC	960
CTTGGCTTAT GATTCAGTTC ACCTGTAGC AAACGCAGCA AAAGGTGCTA AAAATTCAGG	1020
TGAAATCAAG AATAACCTTG CTAAAACAAA AGATTTTGAA GGTGTAACCTG GTCAAACAAG	1080
CTTCGATGCA GACCACAACA CAGTCAAAAC TGCTTACATG ATGACCATGA ACAATGGTAA	1140
AGTTGAAGCA GCAGAAGTTG TAAAACCATA ATAGAAAAAT GTTGAAATAG GGAATGAGCC	1200
TTTGACTCAC TCCCTGTTTC GATATTTAAT ACTCTTCGAA AATCTCTTCA AACTGCGTCA	1260

747

ACGTCGCCTT	GGATTATATA	TGTGACTGAC	TTCGTCAGTC	TTATCTACAA	CCTCAAAGCA	1320
GTGCTTTGAG	CAACCTGCGG	CTAGTTTCCT	AGTTTGCTCT	TTGATTTTCA	TTGAGTATAA	1380
GAACCTATCA	AAAAGTGAGG	GAAAACCTC	GGAATTATAA	ATAGAAAGAG	TGAATCTTAT	1440
GCTCCAACAA	CTCGTAAATG	GTTTGATTCT	AGGTAGTGTT	TACGCGCTGT	TAGCCCTAGG	1500
ATATACCATG	GTTTACGGAA	TTATCAAGCT	CATCAACTTC	GCCCATGGTG	ATATTTATAT	1560
GATGGGAGCC	TTTATCGGTT	ATTTCTTGAT	CAATTCTTTC	CAAATGAATT	TCTTTGTAGC	1620
GCTTATTGTA	GCTATGCTAG	CGACAGCTAT	TCTTGGTGTC	GTGATTGAGT	TTCTTGCTTA	1680
CCGACCTTTG	CGCCACTCTA	CTCGTATTGC	TGTTTGTGAT	ACGGCTATTG	GGGTTTCTTT	1740
CCTATTGGAG	TATGGAATGG	TCTATCTGGT	TGGTGCCAAT	ACCCGTGCCT	TCCCTCAAGC	1800
GATTCAAACA	GTTTCGATATG	ATTTGGGACC	AATTAGCTTA	ACAAATGTGC	AGTTAATGAT	1860
TTTGGCCATT	TCCTTGATTT	TGATGATTTT	GTTACAAGTC	ATTGTCCAAA	AGACTAAGAT	1920
GGGGAAAGCC	ATGCGTGCGAG	TATCAGTAGA	TAGCGACGCG	GCGCAATTGA	TGGGGATCAA	1980
TGTAAACCGT	ACGATTAGCT	TTACCTTCGC	TTTGGGTTC	GCTCTTGCGG	GTGCGGCTGG	2040
TGTTCTGATT	GCTCTTTATT	ATAACTCTCT	TGAGCCTTTG	ATGGGGGTTA	CTCCAGGTCT	2100
TAAATCTTTC	GTTGCCGCAG	TACTTGGTGG	TATCGGAATT	ATTCCTGGTG	CGGCTCTTGG	2160
TGGCTTTGTG	ATTGGTCTAT	TGGAAACCTT	TGCGACTGCC	TTTGGGATGT	CAGATTTCCT	2220
TGATGCCATT	GTTTATGGAA	TCTTGTTGTT	GATCTTGATT	GTCCGCCAG	CTGGTATCCT	2280
TGGTAAGAAT	GTGAAAGAGA	AGGTGTAAAC	GATGAAGGAA	AATTTAAAAG	TTAATATTCT	2340
ATGGTTACTC	CTTTTGTTAG	CTGGCTATAG	CTTGATTAGT	GTACTGGTTT	CAGTCGGAGT	2400
ACTTAATCTA	TTCTATGTAC	AGATTTTACA	ACAAATTGGA	ATTAATATTA	TTTGGGCTGT	2460
TGGTCTCAAC	TTAATCGTTG	GTTTTTCAGG	ACAATTTTCA	CTTGGTCATG	CTGGTTTCAT	2520
GGCGATTGGT	GCCTATGCAG	CAGCTATTAT	TGGTTCTAAA	TCACCAACCT	ACGGTGCCTT	2580
CTTTGGAGCT	ATGCTTGTAG	GGGCTTTGCT	TTCAGGAGCA	GTTGCCCTTAC	TTGTCGGCAT	2640
TCCAACCTTG	CGCTTGAAGG	GGGACTATCT	TGCGGTAGCA	ACTCTGGGTG	TTTCTGAAAT	2700
TATCCGTATC	TTTATCATCA	ATGGTGGAAG	CCTTACAAAT	GGTGCGGCAG	GTATCTTAGG	2760
GATTCCTAAC	TTTACAACCT	GGCAAATGGT	TTACTTCTTT	GTCGTGATTA	CAACCATTGC	2820
AACCTTGAAC	TTCTTGCGTA	GCCCAATTGG	TCGTTCAACC	CTCTCTGTTT	GTGAAGATGA	2880
AATCGCTGCT	GAGTCAGTTG	GGGTTAATAC	GACTAAAATT	AAAATCATCG	CTTTTGTCTT	2940
TGGTGCCATT	ACTGCAAGTA	TTGCTGGGTC	ACTTCAGGCA	GGATTATATCG	GGTCTGTTGT	3000

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ACCGAAAGAT	TACACCTTCA	TCAACTCAAT	CAACGTTTTC	ATTATTGTTG	TATTTGGTGG	3060
ACTCGGTTCC	ATTACAGGTG	CGATTGTTTC	GGCTATTGTT	CTGGGAATTT	TGAATATGCT	3120
TCTCCAAGAT	GTTGCTAGTG	TGCGTATGAT	TATTTACGCT	TTGGCCTTGG	TATTTGGTAAT	3180
GATTTTCAGA	CCAGGTGGAC	TCCTTGGAAC	ATGGGAACCTG	AGCCTATCAC	GTTTCTTTAA	3240
AAAATCTAAG	AAGGAGGAAC	AAAATAATG	GCATTACTTG	AAGTAAACA	GTTAACCAAA	3300
CATTTTGGTG	GTCTAACAGC	TGTTGGAGAT	GTGACTCTTG	AATTGAACGA	AGGGGAACCTG	3360
GTTGGATTAA	TCGGTCCAAA	CGGAGCTGGG	AAAACCACCC	TTTTCAACCT	TTTGACCGGT	3420
GTTTATGAAC	CAAGCGAGGG	AACAGTAACC	CTAGATGGTC	ACCTTTTGAA	TGGGAAATCA	3480
CCTTATAAGA	TTGCCTCTTT	GGGACTTGGA	CGTACTTTCC	AAAATATCCG	TCTCTTTAAA	3540
GATTTAACAG	TTTTAGATAA	TGTTTTGATT	GCTTTTGGA	ACCATCACAA	ACAGCATGTT	3600
TTTACTAGTT	TCTTACGCTT	ACCAGCTTTT	TACAAGAGTG	AAAAAGAATT	AAAGGCTAAA	3660
GCTTTGGAAT	TGTTGAAAAT	CTTTGATTTA	GATGGTGATG	CAGAGACTCT	TGCTAAAAAT	3720
CTTTCTACG	GACAACAACG	TCGTTTGGA	ATTGTTCTGTG	CCCTTGCTAC	GGAACCTAAA	3780
ATTCTCTTCT	TAGATGAACC	AGCAGCAGGT	ATGAACCCAC	AGGAAACAGC	CGAATTGACT	3840
GAGTTAATTC	GTCGTATCAA	AGATGAGTTT	AAGATTACAA	TCATGTTGAT	TGAACACGAT	3900
ATGAATCTGG	TCATGGAAGT	AACAGAACGT	ATCTACGTAC	TTGAATATGG	CCGTTTAATC	3960
GCTCAAGGAA	CTCCAGACGA	AATTAAGACC	AATAACGCG	TTATCGAAGC	TTATCTAGGA	4020
GGTGAAGCCT	AATGTCTATG	TTAAAAGTTG	AAAATCTTTC	TGTGCATTAC	GGTATGATCC	4080
AAGCAGTTCG	TGATGTAAGC	TTTGAAGTTA	ATGAAGGAGA	AGTTGTTTCC	CTTATCGGTG	4140
CCAACGGTGC	AGGTAAGACA	ACTATTCTTC	GCACCTTGTC	AGGTTTGGTT	CGACCAAGTT	4200
CAGGAAAGAT	TGAATTTTTA	GGTCAAGAAA	TCCAAAAAAT	GCCAGCTCAG	AAAATCGTGG	4260
CAAGTGGTCT	TTCACAAGTT	CCAGAAGGAC	GCCACGTCCT	TCCTGGCTTG	ACTGTATATGG	4320
AAAATCTTGA	AATGGGAGCT	TTCTTAAAGA	AAAATCGTGA	AGAAAATCAA	GCTAACTTGA	4380
AGAAGGTTTT	CTCACGCTTT	CCTCGTCTTG	AAGAACGGAA	GAACCAAGAT	GCAGCCACTC	4440
TTTCAGGGGG	GGAACAACAA	ATGCTTGCCA	TGGGACGCGC	CCTCATGTCA	ACACCAAAAC	4500
TTCTTCTTTT	AGATGAACCA	TCAATGGGAC	TTGCCCAAT	CTTTATCCAA	GAAATTTTTG	4560
ATATCATTC	AGATATTCAG	AAGCAAGGAA	CAACGGTCCT	CTTGATTGAA	CAAAATGCCA	4620
ATAAAGCACT	TGCAATCTCT	GACCGAGGAT	ATGTACTGGA	AACAGGGAGA	ATCGTCCTAT	4680
CAGGAACAGG	AAAAGAACTC	GCTTCATCAG	AAGAAGTCAG	AAAAGCATAT	CTAGGTGGCT	4740
AAAACAATCC	AGTGGATTGT	TTTAGTCGGC	AGATGGAGAT	TACGAAGTAA	TCATCAATAT	4800